

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

aTD224
I2I33

Star

United States
Department of
Agriculture
Soil
Conservation
Service
Boise
Idaho



WATER SUPPLY OUTLOOK FOR IDAHO

in Cooperation with Idaho State Department of Water
Resources, Idaho Soil Conservation Districts, and NOAA,
National Weather Service



USDA
NAT'L AGRIC. LIBRARY
RECEIVED
JAN 15 1984

CURRENT SIGNAL OR ORDERS
PUBLICATIONS BUREAU
STANISLAWSKI

January 1, 1985

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Up to 75 percent of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data effecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent as surveyed and marked locations in mountain areas. These measurements are repeated in the same location near the same dates each year. Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Snotel (snow telemetry) networks of automatic snow water equivalent and related data sensing devices, are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. A joint Soil Conservation Service and National Weather Service report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs. This report can be obtained from Soil Conservation Service, National Technical Center, Rm. 510, 511 NW Broadway, Portland, Oregon 97209.

In California, the program is coordinated by the California Department of Water Resources. The Canadian provinces of British Columbia and Alberta have comparable programs.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states.

STATE	ADDRESS
Alaska	Room 129, 2221 East Northern Lights Blvd., Anchorage, Alaska 99504
Arizona	Room 3008, Federal Building, 230 N. First Ave., Phoenix, Arizona 85025
Colorado (N. Mex.)	2490 W. 26th Ave., Diamond Hill, Bldg. A, Denver, Colorado 80211
Idaho	Room 345, 304 N. 8th St., Boise, Idaho 83702
Montana	Room 443, Federal Building, 10 East Babcock, Bozeman, Montana 59715
Nevada	50 S. Virginia Street, P. O. Box 4850, Reno, Nevada 89505
Oregon	1220 S.W. Third Ave., Portland, Oregon 97204
Utah	4420 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	Federal Office Building, 100 East B. Street, Casper, Wyoming 82601

WATER SUPPLY OUTLOOK
FOR
IDAHO
and
Federal-State-Private Cooperative Snow Surveys

Issued by
Peter C. Meyers
Chief
Soil Conservation Service
Washington, D. C.

Released by
Stanley N. Hobson
State Conservationist
Soil Conservation Service
Boise, Idaho

In cooperation with
A. Kenneth Dunn
Director
Idaho Department of Water Resources
Boise, Idaho

and
Soil Conservation Districts
NOAA-National Weather Service
Idaho Power Company
FMC Corporation
Washington Water Power Company

Report prepared by
Snow Survey Staff

Gerald A. Beard
Snow Survey Supervisor
Soil Conservation Service
Boise, Idaho

Soil Conservation Service
Snow Survey Office
Rm. 345, 304 No. 8th Street
Boise, Idaho 83702



WATER SUPPLY OUTLOOK for IDAHO



GENERAL STATEMENT FOR JANUARY 1, 1985

Snow surveys taken near January 1, 1985 show snow pack conditions are above to well above average throughout the state for this time of year. The exceptions are in the Little Lost River drainage and the Beaver-Camas Creek drainages near Dubois where snow pack conditions are near normal. Current conditions range from a low of 98 percent of average on the Beaver-Camas Creek drainage to a high of 190 percent of normal on the St. Joe River drainage in north Idaho. Many stations in the Idaho Panhandle from Orofino north reported record or near record high snow water contents for January 1.

Snow accumulation began earlier than normal across most of Idaho and continued to build rapidly as a result of above normal precipitation and cold temperatures during October and November. Precipitation was below normal in December, however, except for areas in the north where stations continued to report 110 to 130 percent of normal for the north. Central Idaho precipitation was 75 to 90 percent of normal for December while the southern part of the state reported only 50 percent of average. For the state, precipitation was about 75 percent of the norm.

December was very cold. Temperatures across the entire state averaged well below normal. Twin Falls recorded the coldest December since their records began while Boise had the third coldest ever. The lowest temperature in the state was at Stanley at a chilly 38 degrees below zero.

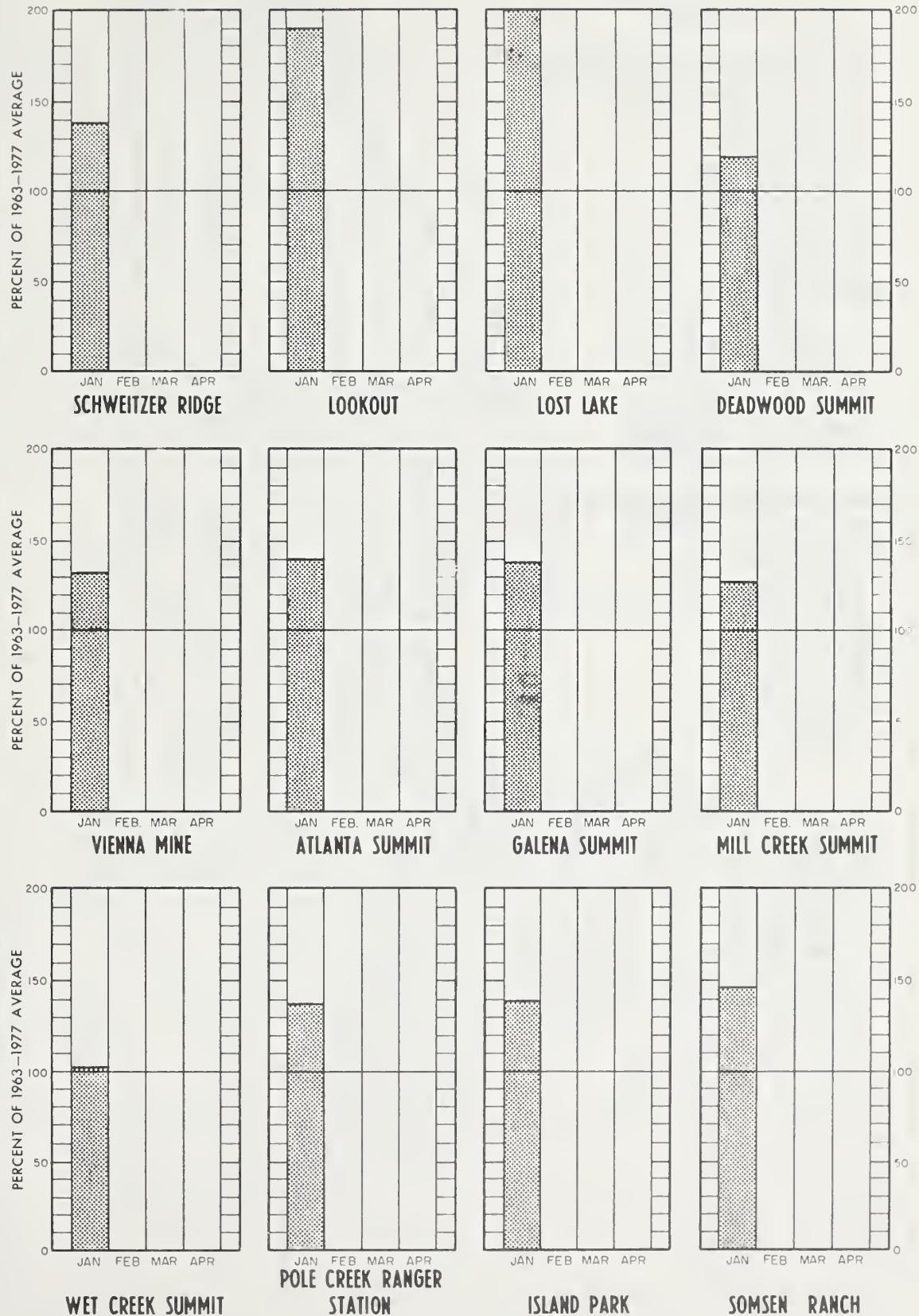
Reservoir carryover storage is 102 percent of average in 17 key reservoirs across the state, ranging from 33 percent of normal in Coeur d'Alene Lake to 312 percent of normal in Salmon Falls Creek Reservoir.

In general, soil moisture conditions are near normal in northern and central Idaho and above normal in the southern and eastern part of the state.

Streamflow forecasts for the April-July period are above to well above normal throughout the state ranging from a low of 106 percent of normal on the Salmon near Salmon to 136 percent on the Clearwater River at Spalding. Near normal precipitation for the remainder of the season will assure Idaho of a good water supply for 1985.

SNOW WATER DEPTHS ACCUMULATION
For Selected Snow Courses

As Compared To 1963 - 1977 15 Year Average



COMPARISON of SNOW COVER

RIVER BASIN WATERSHED	NO. OF COURSES AVERAGED	THIS YEARS SNOW WATER EXPRESSED AS PERCENT OF : LAST YEAR	1961-80 Average
<u>UPPER COLUMBIA RIVER BASIN</u>			
Kootenai River	15	244	157
Pend Oreille River	111	176	141
Clark Fork River	72	164	134
Clark Fork above Blackfoot, Mt	32	151	110
Lower Clark Fork below Missoula, Mt	11	208	180
Blackfoot River, Mt	16	129	124
Flathead River	39	192	150
North Fork Flathead	7	212	144
Middle Fork Flathead	9	274	158
South Fork Flathead	11	166	150
Bitterroot River	13	156	121
Priest River	4	184	158
Spokane River	7 - 10	229	187
Rathdrum Creek	-	-	-
Coeur d'Alene River	3 - 5	266	183
St. Joe River	4 - 5	213	190
<u>LOWER SNAKE RIVER BASIN</u>			
Clearwater River	15 - 16	198	172
North Fork Clearwater	10 - 12	198	185
Lochsa	3 - 4	193	146
Selway	2	195	140
Salmon River	16 - 17	127	139
Salmon above Salmon	5	108	132
<u>MIDDLE SNAKE RIVER BASIN - Northside</u>			
Little Lost River	2 - 3	90	105
Big Lost River	4	69	124
Little Wood River	4	80	120
Big Wood River	14 - 18	82	132
Big Wood River above Magic Reservoir	12 - 13	89	130
Camas Creek	2 - 5	65	145
Canyon Creek	3	61	--
Boise River	15	80	137
Middle Fork Boise	7 - 8	92	134
South Fork Boise	7 - 9	78	132
Payette River	14	120	148
South Fork Payette	6	93	131
North Fork Payette	8	145	160
Weiser River	4 - 6	136	154
<u>MIDDLE SNAKE RIVER BASIN - Southside</u>			
Raft River	1 - 2	55	149
Goose-Trapper Creeks	-	-	-
Salmon Falls Creek	7 - 8	48	131
Bruneau River	2 - 5	71	155
Owyhee River above Owyhee Lake	3 - 6	64	179
<u>UPPER SNAKE RIVER BASIN</u>			
Upper Snake above Palisades Reservoir	17	104	136
Snake above Jackson, Wy	8	119	150
Gros Ventre, Wy	2	82	99
Greys Rivers, Wy	1	71	132
Salt River, Wy	4	75	128
Camas-Beaver Creeks	2 - 3	83	98
Henrys Fork River	10 - 11	112	138
Teton River	6 - 7	99	142
Willow Creek	6 - 8	75	151
Blackfoot River	2 - 3	80	132
<u>GREAT BASIN</u>			
Bear River	2	71	160
Montpelier Creek	4 - 6	91	143
Mink Creek	1 - 3	54	122
Cub River	3	61	149

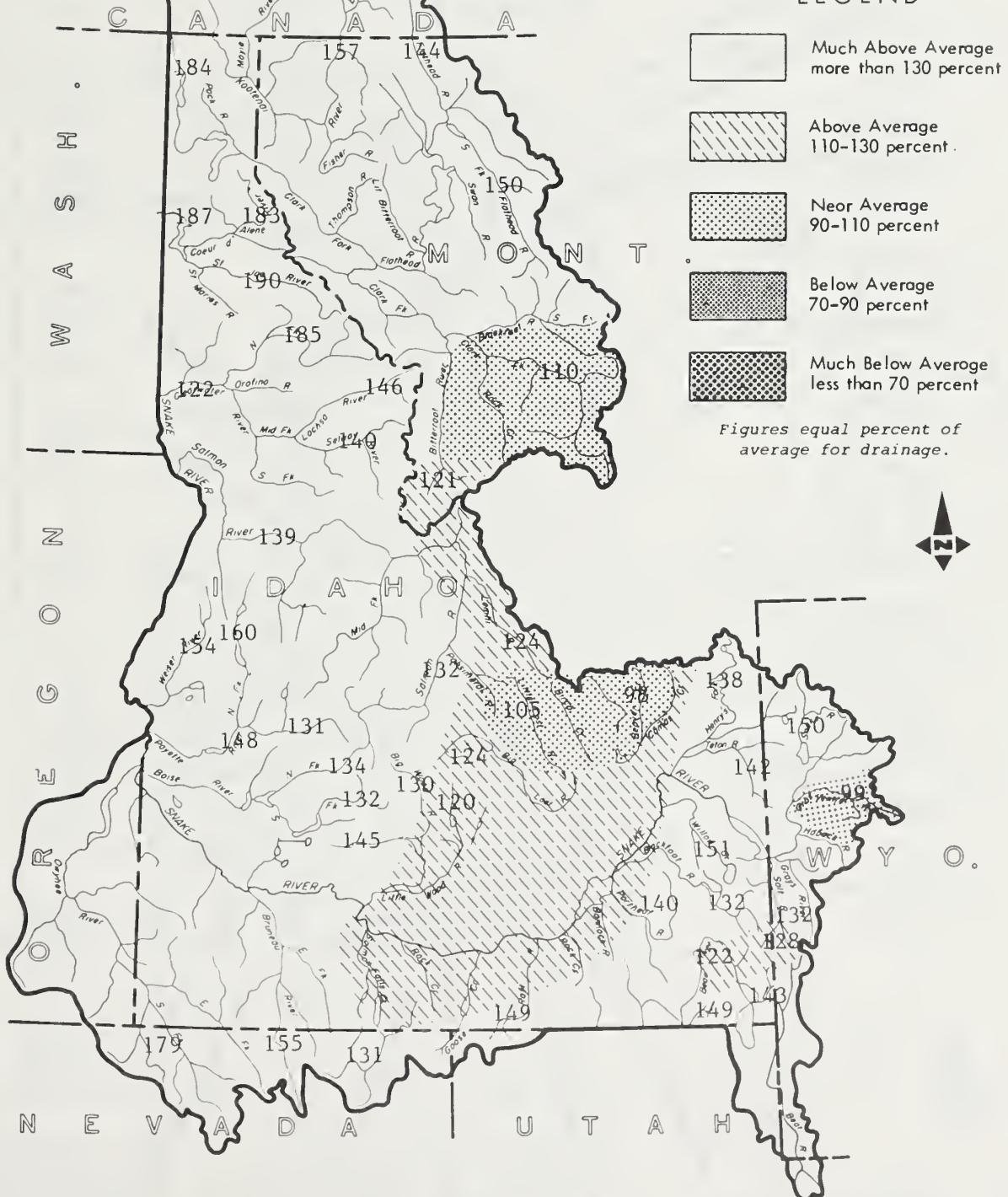
SNOW WATER DEPTHS

JANUARY 1, 1985

IDAHO

SCALE IN MILES

LEGEND



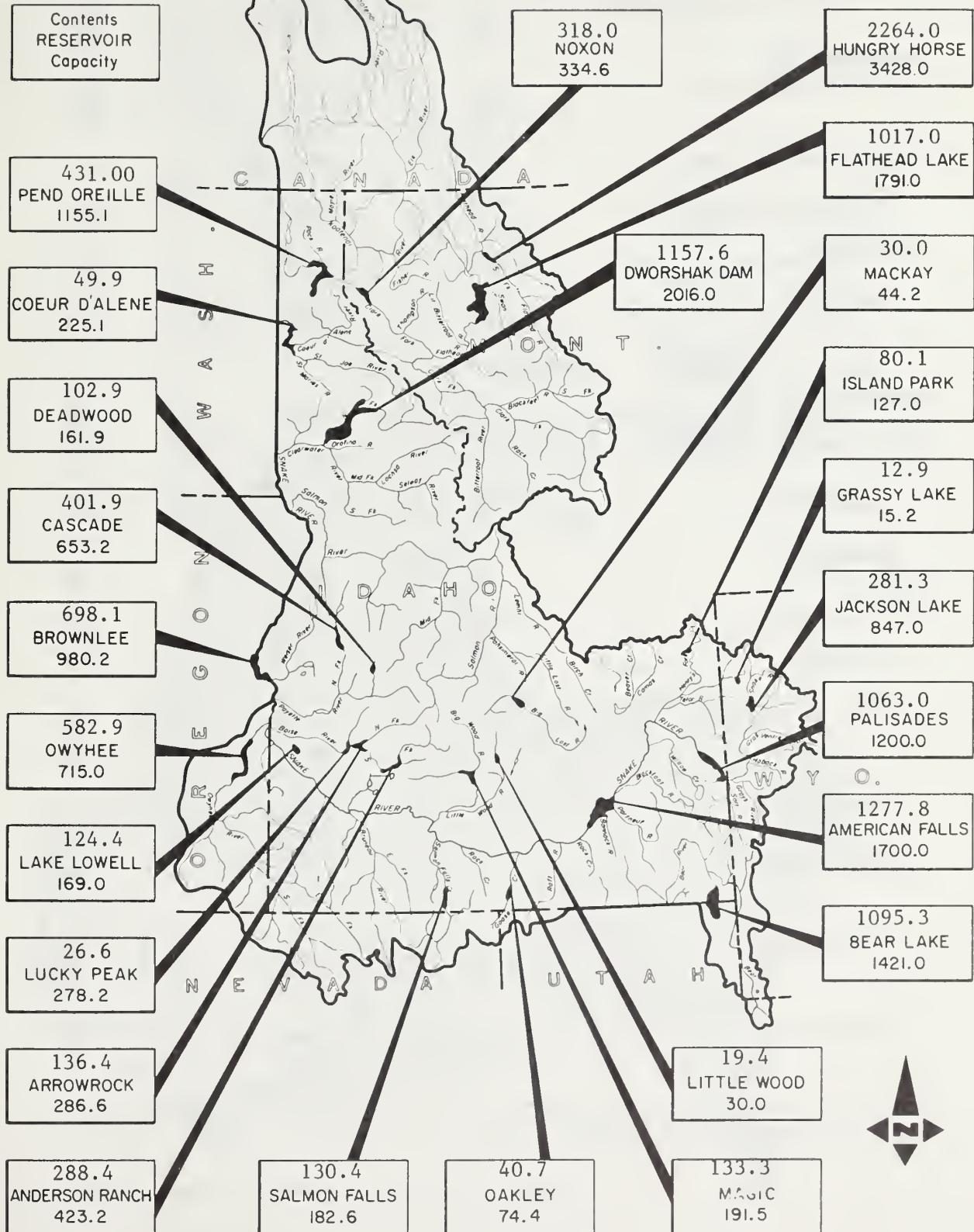
RESERVOIR STORAGE (1,000 Ac. Ft.)

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)			
		THIS YEAR	LAST YEAR	1961-80 Average	
<u>UPPER COLUMBIA BASIN</u>					
<u>Clark Fork - Pend Oreille</u>					
Hungry Horse	3428.0	2264.0	2611.0	2299.0	
Flathead	1791.0	1017.0	1096.0	1325.0	
Pend Oreille	1155.1	431.0	483.3	331.2	
Noxon	334.6	318.0	318.4	314.1	
<u>Spokane</u>					
Coeur d'Alene	225.1	49.9	88.5	142.6	
<u>SNAKE BASIN</u>					
<u>Snake</u>					
Jackson Lake	624.4	281.3	497.1	540.0	
Palisades	1200.0	1063.0	1101.3	817.4	
American Falls	1673.0	1277.8	1140.5	1296.9	
Island Park	127.0	80.1	111.6	86.5	
Grassy Lake	15.2	12.9	13.8	9.8	
Brownlee	980.2	698.1	938.4	818.5	
<u>Goose-Trapper Creeks</u>					
Oakley	74.4	40.7	40.0	22.6	
<u>Salmon Falls Creek</u>					
Salmon Falls	182.6	130.4	72.8	41.6	
<u>Big Lost</u>					
Mackay	44.2	30.0	30.1	25.5	
<u>Big Wood</u>					
Magic	191.5	133.3	125.8	82.1	
<u>Little Wood</u>					
Little Wood	30.0	19.4	12.8	12.7	
<u>Fish Creek</u>					
Carey Valley	14.4	5.7	8.85	--	
<u>Boise</u>					
Anderson Ranch	423.2	288.4	296.3	270.7	
Arrowrock	286.6	136.4	198.2	202.5	
Lucky Peak	278.2	26.6	164.1	49.8	
Lake Lowell (Deer Flat)	169.0	124.4	132.7	108.5	
<u>Owyhee</u>					
Owyhee	715.0	582.9	617.4	312.8	
<u>Payette</u>					
Cascade	653.2	401.9	443.8	353.4	
Deadwood	161.9	102.9	93.9	68.7	
<u>Weiser</u>					
Mann Creek	11.1	3.7	4.9	--	
<u>Clearwater</u>					
Dworshak	2016.0	1157.6	1011.7	--	
<u>GREAT BASIN</u>					
<u>Bear</u>					
Bear Lake	1421.0	1095.3	1135.0	973.3	
Montpelier Creek	4.05	2.22	2.45	--	

RESERVOIR STORAGE

USABLE CONTENTS (1,000 Acre Feet)

JANUARY 1, 1985

50 0 50 100 150
SCALE IN MILES

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST C Thousand Acre Feet	Percent of Average	FORECAST PERIOD	THOUSAND ACRE FEET Last Year	Average +
<u>UPPER COLUMBIA BASIN</u>					
<u>KOOTENAI RIVER</u>					
Leonia	(at)	9060 7900 6353	105 105 105	Apr-Sep Apr-Jul Apr-Jun	--- --- ---
<u>PEND OREILLE RIVER</u>					
Clark Fork River					
Whitehorse Rapids	(at)	16100 14600 12500	118 118 118	Apr-Sep Apr-Jul Apr-Jun	13575 12351 10570
Pend Oreille Lake Inflow		16400	118	Apr-Sep Apr-Jul	--- ---
Priest River					
Priest River 1/	(at)	1190 1115	134 134	Apr-Sep Apr-Jul	895 841
<u>SPOKANE RIVER</u>					
Post Falls 2/	(at)	3800 3674	133 133	Apr-Sep Apr-Jul	2860 2756
St. Joe River					
Calder	(at)	1680 1608	131 131	Apr-Sep Apr-Jul	1294 1225
<u>SNAKE RIVER BASIN</u>					
<u>SNAKE RIVER - MAIN STEM</u>					
Moran 3/	(at)	1120	127	Apr-Sep	---
Palisades Inflow 3/		4750	124	Apr-Sep	885
Heise 4/	(nr)	4880 4158	120 120	Apr-Sep Apr-Jul	3798 4066 3465
Blackfoot 5/	(nr)	6229 5138	116 116	Apr-Sep Apr-Jul	5430 4429
Henrys Fork					
Ashton 6/	(nr)	780 582	109 110	Apr-Sep Apr-Jul	714 529
Rexburg 7/	(nr)	1650 1290	112 112	Apr-Sep Apr-Jul	1475 1153
Falls River					
Squirrel	(nr)	403	110	Apr-Jul	366
Teton					
South Leigh Creek	(ab)	271 167	114 115	Apr-Sep Apr-Jul	194 145
St. Anthony	(nr)	511 412	110 110	Apr-Sep Apr-Jul	465 375
Portneuf River					
Topaz	(at)	130 105	128 128	Mar-Sep Mar-Jul	102.1 82.2
Oakley Reservoir Inflow		40.2 36.2	133 133	Apr-Sep Apr-Jul	30.2 27.2
Salmon Falls Creek					
San Jacinto	(nr)	112 108 107	120 121 121	Mar-Sep Mar-Jul Mar-Jun	94.0 89.3 84.4
Bruneau River					
Hot Springs	(nr)	315 301	130 130	Mar-Sep Mar-Jul	243 232

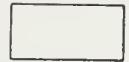
(c) Assuming normal meteorological conditions.

+1961-1980 period

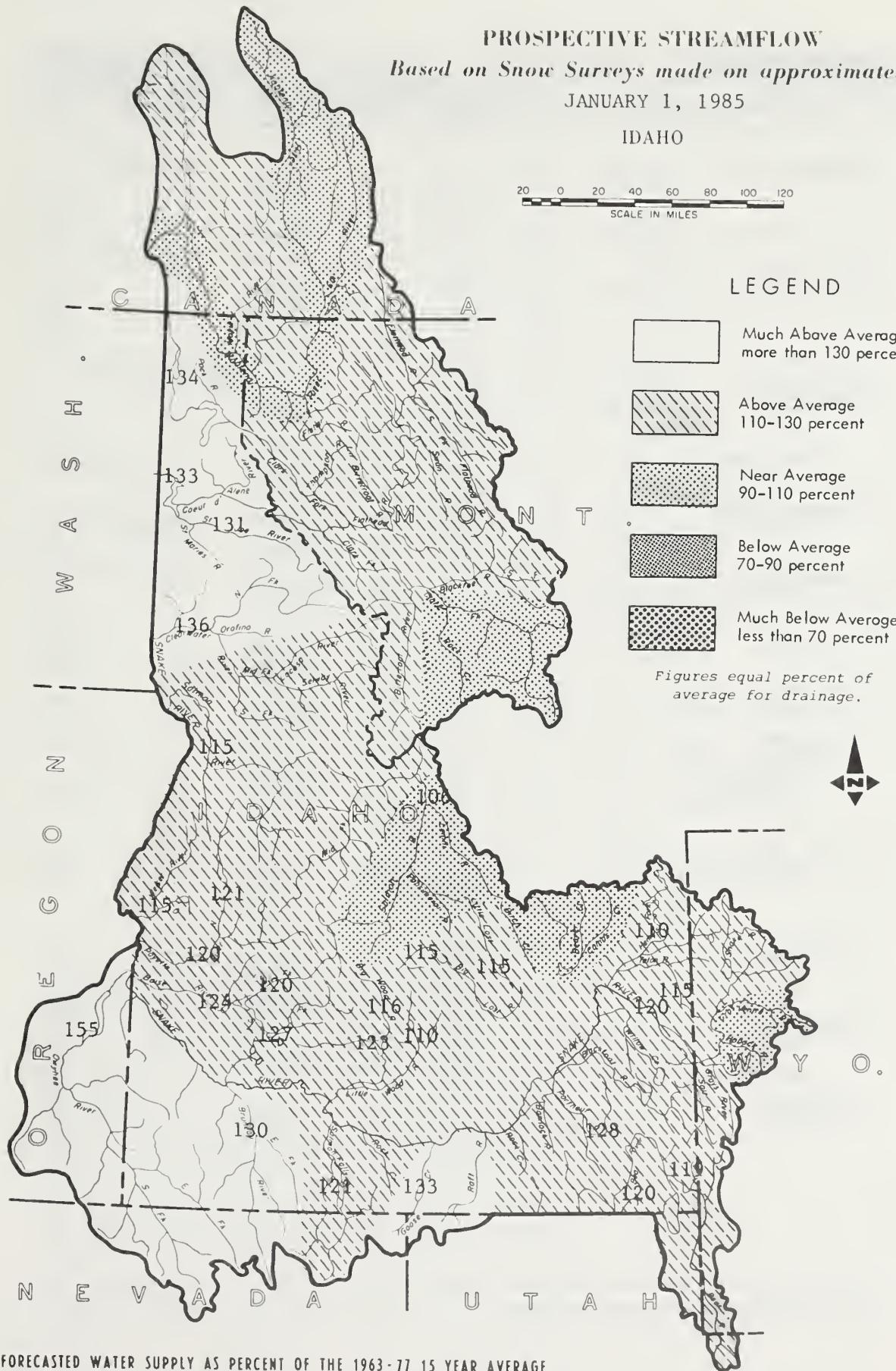
PROSPECTIVE STREAMFLOW
Based on Snow Surveys made on approximately
 JANUARY 1, 1985
 IDAHO

20 0 20 40 60 80 100 120
 SCALE IN MILES

LEGEND

-  Much Above Average
more than 130 percent
-  Above Average
110-130 percent
-  Near Average
90-110 percent
-  Below Average
70-90 percent
-  Much Below Average
less than 70 percent

Figures equal percent of
average for drainage.



FORECASTED WATER SUPPLY AS PERCENT OF THE 1963-77 15 YEAR AVERAGE

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST ^c Thousand Acre Feet	Percent of Average	FORECAST PERIOD	THOUSAND ACRE FEET Last Year	Average ⁺
<u>Little Lost River</u> Howe	(nr)	48.5 37.6	115 115	Apr-Sep Apr-Jul	-- . --
					42.2 32.6
Wet Creek	(b1)	47.3 38.3 30.5	122 122 122	Apr-Sep Apr-Jul Apr-Jun	-- -- --
					38.8 31.4 25.0
<u>Big Lost River</u> Howell Ranch	(at)	243 213 166	115 115 115	Apr-Sep Apr-Jul Apr-Jun	-- -- --
					211 186 144
Mackay 8/	(nr)	211	115	Apr-Sep	--
					184
<u>Big Wood River</u> Bellevue	(nr)	223 208	116 116	Apr-Sep Apr-Jul	-- --
					193 180
Magic Reservoir Inflow 9/		363 344	123 123	Apr-Sep Apr-Jul	-- --
					295 280
<u>Little Wood River</u> Carey 10/	(nr)	110 102 91	110 110 110	Apr-Sep Apr-Jul Apr-Jun	-- -- --
					101.0 93.1 82.6
<u>Boise River</u> Twin Springs	(nr)	846 785	120 120	Apr-Sep Apr-Jul	-- --
					705 650
Boise 11/	(nr)	1948 1802 1586	124 124 124	Apr-Sep Apr-Jul Apr-Jun	-- -- --
					1571 1454 1279
<u>South Fork</u> Anderson Dam 12/	(at)	749 700	127 127	Apr-Sep Apr-Jul	-- --
					590 551
<u>Owyhee River</u> Gold Cr., Nv 13/ Owyhee, Nv 13/ Lake Owyhee net inflow 14/	(nr) (nr)	32 120 587 541	137 140 155 155	Apr-Jul Apr-Jul Apr-Sep Apr-Jul	-- -- -- --
Rome	(at)	579	154	Apr-Jul	--
					376
<u>Payette River</u> Horseshoe Bend 15/	(nr)	2220 2001	120 120	Apr-Sep Apr-Jul	-- --
					1805 1668
<u>North Fork</u> Cascade 16/	(at)	669 627	121 121	Apr-Sep Apr-Jul	-- --
Banks 16/	(nr)	861 812	121 121	Apr-Sep Apr-Jul	-- --
<u>South Fork</u> Lowman	(at)	525 524	119 119	Apr-Sep Apr-Jul	-- --
Deadwood Reservoir Inflow		164	117	Apr-Jul	--
<u>Weiser River</u> Weiser	(nr)	492 460	115 115	Apr-Sep Apr-Jul	-- --
					442 399

(c) Assuming normal meteorological conditions.

+1961-19080 period

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST ^c		FORECAST PERIOD	THOUSAND ACRE FEET	Average ^d
	Thousand Acre Feet	Percent of Average		Last Year	Average
<u>Salmon River</u>					
Whitebird	(at)	7900 7140	115 115	Apr-Sep Apr-Jul	-- --
Salmon	(nr)	1120 956	106 106	Apr-Sep Apr-Jul	-- --
<u>Clearwater River</u>					
Orofino	(at)	6900 6390	130 130	Apr-Sep Apr-Jul	-- --
Spalding	(at)	11500 10900	136 136	Apr-Sep Apr-Jul	-- --
<u>North Fork Clearwater</u>					
Dworshak Reservoir Inflow		4029 3790	135 135	Apr-Sep Apr-Jul	-- --
<u>GREAT BASIN</u>					
<u>BEAR RIVER</u>					
Harer	(at)	400	129	Apr-Sep	--
<u>Montpelier Creek</u>					
Montpelier	(nr)	16.5	119	Apr-Sep	--
<u>Cub River</u>					
Preston	(nr)	62.2 56.2	120 120	Apr-Sep Apr-Jul	-- --

^{1/} Observed flow corrected for storage in Priest Lake.
^{2/} Observed flow corrected for storage in Coeur d'Alene Lake.
^{3/} Corrected for storage in Jackson Lake.
^{4/} Corrected for storage in Jackson Lake and Palisades.
^{5/} Corrected for storage in Jackson Lake, Palisades, Island Park, Henrys Lake, Grassy Lake and diversions between Heise and Blackfoot.
^{6/} Corrected for storage in Henrys Lake and Island Park Reservoir.
^{7/} Corrected for storage in Henrys Lake and Island Park, Grassy Lake and diversions between Ashton and Rexburg.
^{8/} Observed flow corrected for storage in Mackay Reservoir.
^{9/} Combined flow Big Wood River nr. Bellevue and Camas Creek nr. Blaine.
^{10/} Corrected for storage in Little Wood Reservoir.
^{11/} Corrected for storage in Arrowrock, Anderson Ranch and Lucky Peak.
^{12/} Corrected for storage in Anderson Ranch Reservoir.
^{13/} Corrected for storage in Wildhorse Reservoir.
^{14/} From Bureau of Reclamation records of inflow.
^{15/} Corrected for storage in Cascade and Deadwood Reservoirs.
^{16/} Corrected for storage in Cascade Reservoir.

SNOW

DRAINAGE BASIN and or SNOW COURSE		Elevation	THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	Last Year
NAME & DRAINAGE							b Average
Above Burke	Coeur d'Alene	4100	12/28	67	14.2	5.8	8.7*
Above Gilmore	Lemhi	8240	1/03	23	5.9	--	3.7*
Above Roland	St. Joe	4350	1/01		21.2e	--	10.8*
Afton Rgr. Sta. (Wy)	Salt River	6240	12/27	16	3.0	4.6	2.1
Antelope Ridge	Owyhee	6180	12/31	19	5.4	9.1	3.2*
Arizona (Wy)	Snake	6820	1/03	42	9.7	10.5	7.9
Aspen Grove	Willow	6500	12/27		7.3e	9.8e	5.1*
Aster Creek (Wy)	Snake	7750	1/02	76	21.1	13.5	12.5
Atlanta Summit	Boise	7600	1/01	69	20.5	21.8e	14.6*
Atlanta Townsite	Boise	5370	1/01	34	7.3	--	--
Bad Bear	Boise	4940	12/27	33	9.1	9.0	5.4*
Badger Gulch	Trapper	6660	1/01		5.3e	--	4.7*
Banner Summit	Payette	7040	1/01		19.6e	16.6e	--
Base Camp (Wy)	Snake	7030	1/03	41	10.7	9.5	8.6
Bear Basin	Little Salmon	5350	1/01		11.6e	10.0e	--
Bear Canyon	Big Lost	7900	1/01		8.0e	9.5e	6.5*
Bear Saddle	Mann Creek	6180	1/01		16.6e	15.2e	--
Bennett Mountain	Canyon Creek	6560	12/29	38	11.3	15.6	--
Benton Meadow	Priest	2370	1/03	28	6.4	2.9	3.0
Benton Spring	Priest	4920	1/03	55	15.8	8.6	8.4
Big Creek Summit	Salmon	6580	1/01		25.2e	16.5	14.6*
Big Springs	Henrys Fork	6400	12/31	44	10.9	9.3	8.0
Birch Creek	Willow	6800	12/27	21	5.4	7.3	3.7*
Black Bear (Mt)	Madison	7950	12/27	70	21.6	19.0	16.3
Black Moose	Henrys Fork	8160	12/31		21.7e	--	16.4*
Blue Ledge Mine	W. Camas	6900	1/01		7.1e	--	7.7*
Blue Ridge	Blackfoot	6780	12/27	42	12.3	14.9	--
Bogus Basin	Payette	6340	12/27	48	14.8	18.5	9.3
Bogus Basin Road	Boise	5540	12/27	19	4.3	9.7	2.7*
Bone	Willow	6200	12/27	19	4.0	5.6	2.6*
Boulder Creek	Weiser	5440	12/28	51	12.5	9.6	9.9
Breezy Saddle	Clearwater	5010	1/02	93	24.6	10.0	--
Brockman Station	Willow	6430	12/27	21	5.0	7.9	--
Brundage Mountain	Little Salmon	7560	1/01		31.2e	20.4e	20.1
Camas Creek Divide	Big Wood	5710	12/29	28	7.7	14.7	--
Camp Creek	Beaver	6580	12/28	15	2.6	4.4	4.4
Cayuse Airstrip	Clearwater	3500	1/01	42	7.9	5.0	5.4*
CCC Camp (Wy)	Salt	7000	12/31	33	6.8	8.4	5.1
Chimney Creek	Big Wood	6400	12/29	32	8.4	--	--
Clear Creek Meadows	Raft	9420	1/01		14.8e	--	8.7
Copper Basin	Big Lost	7640	1/01		4.5e	8.8e	3.7*
Copper Ridge	Coeur d'Alene	4820	1/01		21.0e	--	10.4
Couch Summit	Boise	6840	12/29	38	9.7	13.6	7.1*
Cozy Cove	Deadwood	5380	12/28	39	8.1	10.2	7.0*
Crab Creek	Camas-Beaver	6860	12/29	27	6.1	--	--
Crater Meadows	Clearwater	5960	1/03	97	28.3	18.2	18.0*
Crooked Fork	Lochsa	3610	1/03	37	6.8	4.9	5.3*
Cub River Ranger Station	Cub	5450	12/27	21	5.0	11.2	3.5*
Darby Canyon (Wy)	Teton	8250	12/27	50	13.5	14.1	9.7
Deadline	Salmon Falls	7400	1/01		9.0e	21.4	8.7*
Deadline South	Salmon Falls	7450	1/01		10.7e	22.9	9.7*
Deadman Gulch	Boise	5600	12/20	49	12.0	--	7.3
Deadwood Airstrip	Deadwood	5360	1/01		8.2e	11.0e	6.4*
Deadwood Summit	Deadwood	6860	1/01		25.6e	23.2	21.5*
Dollarhide Summit	Big Wood	8420	1/01	49	13.2	18.2e	11.6*
East Ragged Saddle	Rathdrum	3740	1/07	62	19.8	--	--
Elk Butte	Clearwater	5550	1/02	102	27.2	14.6	--
Emigrant Summit	Bear	7390	12/26	43	11.4	21.1e	9.6*
Fish Lake Airstrip	Lochsa	5650	1/02	91	23.8	12.6	16.9*
Forty-nine Meadows	Clearwater	4830	1/02	86	22.0	10.4	12.1*
Four Mile Meadows (Wy)	Snake	7860	1/01		6.0e	--	5.3
Franklin Basin	Cub	8040	12/27	50	15.9	20.7	10.3
Franklin Basin Snotel	Cub	8170	12/27	56	16.6	22.8	--
Freds Mountain	Teton	8150	12/27		14.4e	--	10.4
Galena	Big Wood	7440	12/31	43	11.4	11.5	7.7
Galena Snotel	Big Wood	7470	1/01	45	13.0	12.3	--
Galena Summit	Big Wood	8780	12/31	54	14.1	14.1	10.2
Garfield Ranger Station	Little Wood	6560	12/28	24	5.1	7.2	4.0*
Gibbons Pass (Mt)	Bitterroot	7100	12/24	51	11.9	8.9	9.4
Giveout	Montpelier	6860	1/01		7.7e	8.3e	4.9e
Glade Creek (Wy)	Snake	7040	1/01	59	15.3	13.3	--
Goat Creek (Nv)	Salmon Falls	8880	1/01		12.1e	16.8	7.4*
Gold Creek (Nv)	Owyhee	6600	1/01		1.9e	--	1.9

(b) 1961-1980, 20 year period. *Estimated 1961-1980 20 year average.
(e) Snow course data estimated from automated Snotel readings.

SNOW

DRAINAGE BASIN and or SNOW COURSE NAME & DRAINAGE		Elevation	THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches) Last Year	b Average
Graham Guard Sta.	Boise	5690	12/28	39	8.9	--	6.7*
Graham Ranch	Big Wood	6270	12/31	36	9.5	9.5	5.4
Grassy Lake (Wy)	Henry's Fork	7265	1/02	80	22.3	18.3	14.6
Greys Boundary (Wy)	Greys	5720	12/27	26	5.8	8.2	4.4
Grover Park Divide (Wy)	Salt	7000	12/31	31	6.0	8.4	4.8
Heart Lake Trail (Mt)	Clark Fork	4800	1/02	69	19.0	8.6	8.5
Hemlock Butte	Clearwater	5810	1/03	123	35.6	19.4	20.5*
Hilts Creek	Little Lost	8000	12/28	23	5.1	4.6	--
Hoodoo Basin (Mt)	Clark Fork	6000	1/02	118	37.0	18.1	20.1
Hoodoo Creek (Mt)	Clark Fork	5900	1/02	113	33.6	17.3	17.8
Howell Canyon	Marsh Creek	7980	1/01		13.9e	25.2e	10.5
Humboldt Gulch	Coeur d'Alene	4250	12/28	59	13.2	3.6	--
Hummingbird Springs(Nv)	Jarbridge	8870	1/01		15.5e	--	9.7*
Hyndman Creek	Big Wood	7440	1/01		10.0e	7.8e	--
Idaho City Townsite	Boise	4000	12/27	18	4.5	4.0	--
Indian Meadows	Teton	8240	12/27	74	21.8	22.2	15.4*
Island Park	Henry's Fork	6290	12/31	39	8.9	7.9	6.4
Jackpine Creek (Wy)	Teton	7350	12/27	49	13.1	12.0	--
Jackson Peak	Boise	7070	12/28	60	17.1	16.8	14.2*
Kellogg Peak	Couer d'Alene	5560	1/01		25.9e	--	14.7*
Kilgore	Camas Creek	6320	12/29	22	4.8	5.8	4.4
Lake Fork	Payette	5290	1/05	38	10.2	9.1	7.4
Lakeview Canyon (Mt)	Beaverhead	6930	12/31	24	5.9	5.1	5.4
Lakeview Ridge (Mt)	Beaverhead	7400	12/31	23	5.7	5.1	4.8
Langford Flat Creek	Salmon Falls	5980	12/28	16	3.0	10.1	--
Lava Creek	Willow	7350	12/27	32	8.0	11.9	5.0*
Lemhi Ridge (Mt)	Beaverhead	8100	12/27	24	5.4	5.0	5.0
Le Bois	N.F. Payette	4900	1/05	46	11.2	--	--
Lewis Lake Divide (Wy)	Snake	7850	1/01	91	24.7	22.5	17.0
Liberty Spring	Mink	8600	1/01		17.5e	--	14.7*
Little Beaver	Montpelier	6970	1/01		9.0e	9.9	5.7*
Little Camas Flat	Boise	4940	12/29	20	4.7	8.6	--
Lolo Pass	Lochsa	5240	1/03	73	18.5	8.0	12.1*
Lookout	Coeur d'Alene	5140	1/02	94	27.3	11.2	14.4
Lost Lake	Clearwater	6110	1/02	144	44.8	20.8	22.2*
Lost-Wood Divide	Big Lost	7900	1/01		11.6e	15.3	10.5
Lower Home Canyon	Montpelier	7640	1/01		7.6e	--	5.6*
Lower Pebble	Portneuf	5780	12/27		7.0e	--	5.2*
Lower Sands Creek	Couer d'Alene	3120	1/01		15.7e	--	8.8*
Madison Plateau (Mt)	Madison	7750	12/27	45	11.8	10.0	9.5
Magic Mountain	Rock Creek	6880	1/01		7.2e	20.4	7.4
Mascot Mine	Big Wood	7780	1/01		9.7e	7.8	6.1*
McRenolds Reservoir	Teton	6720	12/27	41	10.4	10.2	7.8*
Meadow Lake	Lemhi	9150	1/03	35	9.2	--	8.4*
Mill Creek Summit	Salmon	8800	1/01		12.8e	10.6	10.1*
Mink Creek	Portneuf	6410	12/27		10.2e		7.3*
Montpelier Creek	Montpelier	6540	1/01		5.5e	5.7	3.3*
Moonshine	Little Lost	7440	12/29	23	4.8	--	4.4*
Moores Creek Summit	Boise	6100	12/27	62	19.2	24.4	13.1
Moose Creek	N.F. Salmon	6200	12/26	34	8.0	7.6	7.1*
Moran (Wy)	Snake	6750	1/03	28	6.3	7.0	5.4
Morgan Creek	Salmon	7600	1/01		8.7e	5.9	5.9*
Mount Baldy	Big Wood	8920	12/31	43	10.2	13.6	8.5
Mud Creek	Willow	7100	12/27	47	13.2	15.2	--
Mud Flat	Owyhee	5730	12/31	25	6.0	10.0	2.8*
Muldoon	Little Wood	6320	12/28	17	3.6	4.0	3.1*
Packsaddle Spring	Teton	8200	12/27	54	16.4	17.4	--
Pebble Creek	Portneuf	6550	12/27		8.7e	--	6.0*
Pierce Ranger Sta.	Clearwater	3080	12/27	30	6.0	4.0	4.7*
Pine Creek Pass	Teton	6810	12/31	42	10.4	10.8	6.9
Poison Meadows (Wy)	Greys	8500	1/01		13.8e	--	14.1
Pole Creek Ranger Sta.(Nv)	Jarbridge	8360	1/01		11.9e	16.8	8.7*
Prairie	Boise	4800	1/01		4.4e	--	2.9*
Road Creek	Boise	5380	12/27	27	5.6	--	4.6*
Rock Flat Summit	Payette	5310	1/02	44	10.8	9.6	7.3
Roland Summit	St. Joe	5120	1/01		30.5e	--	17.1*
Saddle Mountain (Mt)	Bitterroot	7940	12/24	52	12.2	9.5	10.7*
Salt River Summit (Wy)	Salt	7700	12/31	35	7.6	9.8	6.3
Savage Pass	Lochsa	6170	1/02	66	16.8	--	10.7*
Sawmill Canyon	Little Lost	7000	12/29	19	3.7	--	3.6*
Sawtell Mountain	Henry's Fork	8720	12/31	62	18.7	20.7	13.7*
Schweitzer Bowl	Pend Oreille	4800	12/27	73	21.2	11.2	13.5*
Schweitzer Ridge	Pend Oreille	6200	12/27	90	29.2	16.8	21.1*
Secesh Summit	Payette	6520	1/01		24.2e	14.8	14.8*

(b) 1961-1980, 20 year period. *Estimated 1961-1980 20 year average.

(e) Snow course data estimated from automated Snotel readings.

SNOW

DRAINAGE BASIN and or SNOW COURSE		Elevation	THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	Last Year
Shanghai Summit	Clearwater	4570	1/04	87	22.9	9.1	9.8*
Sheep Mountain	Willow	6570	12/27	28	7.0	10.4	4.6*
Sherwin	St. Maries	3200	1/04	47	11.9	6.4	5.6*
Shoshone Basin	Salmon Falls	5810	12/28	18	2.9	9.3	3.0*
Slug Creek Divide	Blackfoot	7230	1/01		8.2e	10.6	6.8*
Snake River Sta. (Wy)	Snake	6920	1/02	52	12.8	11.0	8.5
Soldier Ranger Sta.	Big Wood	5740	12/29	29	7.4	10.5	4.7*
Somsen Ranch	Willow Creek	6840	1/01		8.5e	10.8	5.8*
South Mountain	Jordan-Owyhee	6500	1/01	37	12.2	18.0	5.1
Squaw Flat	Weiser	6240	1/01		17.0e	11.0	9.1*
Squaw Meadow	Payette	5900	1.01		25.0e	15.6	15.8*
State Line	Teton	6660	12/31	41	9.6	9.3	6.0
Stickney Mill	Big Lost	7430	1/01		5.3e	9.0	3.0*
Strawberry Creek	Mink	5820	12/27		6.1e	--	4.3*
Strawberry Mink Divide	Mink	6720	1/01		10.7e	--	8.3*
Swede Peak	Little Wood	7640	12/28	35	9.0	11.5	7.6*
Targhee Pass	Henrys Fork	6980	12/31		7.4e	6.6	6.1*
Taylor Canyon (Nv)	Owyhee	6200	12/27	13	2.1	--	2.1
Tex Creek	Willow	6650	1/01		5.2e	--	3.4*
Togwotee Pass (Wy)	Snake	9580	1/03	51	12.8	16.5	13.6
Trinity Mountain	Boise	7770	12/29	75	23.0	25.4	18.5*
Tripod Summit	Payette	5260	1/04	49	13.5	--	8.9*
Twelve Mile Creek (Mt)	Bitterroot	5600	12/27	48	11.6	7.1	8.5
Twin Lakes (Mt)	Bitterroot	6510	1/03	83	23.8	11.8	17.2
Twin Spirit Divide	Rathdrum	3480	12/27	53	12.6	--	--
Twitchell Canyon	Blackfoot	6300	12/31	40	10.8	10.2	--
Upper Home Canyon	Montpelier	8560	1/01		10.7e	--	9.1*
Valley View	Henrys Fork	6680	12/31	35	8.1	6.9	6.2
Vienna Mine	Salmon	8960	1/01	71	20.0	22.4	15.0*
Webb Creek	Clearwater	4720	12/27	26	5.7		
West Branch	Weiser	5560	12/28	53	12.8	10.0	--
Wet Creek Summit	Little Lost	7680	12/28	22	4.4	6.0	4.3*
Whiskey Creek (Mt)	Madison	6800	12/27	43	12.0	9.0	7.1
Whiskey Flat	Montpelier	6960	1/01		6.0e	6.7	3.6*
White Elephant	Henrys Fork	7710	12/31	49	13.9	13.3	9.6*
Willow Flat	Cub	6070	12/27	32	8.8	16.4	6.1*

(b) 1961-1980, 20 year period. *Estimated 1961-1980 20 year average.
 (e) Snow course data estimated from automated Snotel readings.

SNOW PILLOW DATA

Data Site Name	Drainage	Elevation	This Year		Past Record	
			Date	Water Content (inches)	Last Year	61-80 1/ Average
Atlanta Summit	Boise	7580	1/1	18.6	19.1	12.4
Banner Summit	Payette	7040	1/1	17.5	14.7	--
Base Camp	Upper Snake	7030	1/1	9.7	8.8	--
Bear Basin	Little Salmon	5350	1/1	11.1	9.3	7.4
Bear Canyon	Big Lost	7900	1/1	8.3	8.3	6.3
Bear Creek	Jarbridge	7800	1/1	11.9	19.5	--
Bear Mountain	Clark Fork	5400	1/1	NA	17.0	--
Bear Saddle	Mann Creek	6180	1/1	15.7	14.6	--
Bennett Mountain	Canyon Creek	6560	1/1	10.9	19.1	--
Big Creek Summit	Salmon	6580	1/1	21.7	15.4	11.3
Big Sandy Opening	Green	9080	1/1	6.6	NA	--
Blind Bull Summit	Green	8650	1/1	12.7	15.3	--
Bostetter Ranger Station	Trapper	7500	1/1	10.9	NA	--
Bunchgrass Meadow	Pend Oreille	5000	1/1	19.3	12.8	--
Cool Creek	Clearwater	6250	1/1	35.4	NA	--
Cottonwood Lake	Salt	7600	1/1	11.2	14.1	--
Coulter Creek	Upper Snake	7020	1/1	13.8	NA	--
Cozy Cove	Deadwood	5380	1/1	10.8	12.9	6.9
Crab Creek	Camas-Beaver	6860	1/1	6.8	NA	--
Crater Meadows	Clearwater	5960	1/1	30.8	NA	--
Deadwood Summit	Deadwood	6860	1/1	25.9	22.5	20.9
Dollarhide Summit	Big Wood	8420	1/1	14.4	18.4	11.7
Elk Butte	Clearwater	5550	1/1	30.4	18.8	--
Elkhart Park Guard Station	Green	9400	1/1	5.6	8.7	--
Emigrant Summit	Bear	7390	1/1	11.0E	24.5	10.6
Franklin Basin	Cub	8170	1/1	18.1	23.1	--
Galena	Big Wood	7470	1/1	11.4	11.2	7.6
Galena Summit	Big Wood	8780	1/1	NA	NA	8.3
Garfield Ranger Station	Little Wood	6560	1/1	5.3	NA	3.7
Giveout	Montpelier	6930	1/1	7.8	8.8	4.6
Goat Creek	Salmon Falls	8880	1/1	11.8	18.2	--
Graham Guard Station	Boise	5690	1/1	11.1	11.2	5.4
Grassy Lake	Upper Snake	7265	1/1	22.3	16.9	--
Gros Ventre Summit	Upper Snake	8750	1/1	NA	NA	--
Hemlock Butte	Clearwater	5810	1/1	35.1	19.7	21.2
Hilts Creek	Little Lost	8000	1/1	8.2	NA	--
Howell Canyon	Marsh Creek	7980	1/1	11.3	21.9	8.5
Humboldt Gulch	Coeur d'Alene	4250	1/1	13.3	4.4	5.5
Hyndman	Big Wood	7440	1/1	6.9	6.4	4.9
Indian Creek	Green	7960	1/1	13.2	18.6	--
Island Park	Henrys Fork	6290	1/1	8.8	7.5	6.8
Jackson Peak	Boise	7070	1/1	17.9	16.2	12.5
Kelly Ranger Station	Green	8180	1/1	8.5	13.2	--
Lewis Lake Divide	Upper Snake	7850	1/1	20.7	17.0	--
Lolo Pass	Lochsa	5240	1/1	NA	10.2	12.9
Lookout	Coeur d'Alene	5140	1/1	25.4	NA	14.5
Loomis Park	Green	8240	1/1	8.2	9.2	--
Lost Lake	Clearwater	6110	1/1	49.0	24.0	--
Lost-Wood Divide	Big Lost	7900	1/1	7.7	11.6	9.7
Magic Mountain	Rock Creek	6880	1/1	6.9	20.2	7.4
Meadow Lake	Lemhi	9150	1/1	NA	NA	--
Mill Creek Summit	Salmon	8800	1/1	12.1	10.1	9.8
Moonshine	Little Lost	7440	1/1	5.0	5.4	4.2
Moores Creek Summit	Boie	6100	1/1	21.7	21.4	11.7
Moose Creek	N. Fork Salmon	6200	1/1	9.0	8.3	7.3
Morgan Creek	Salmon	7600	1/1	8.2	7.1	5.5
Mosquito Ridge	Coeur d'Alene	5200	1/1	NA	13.1	--
Mountain Meadows	Selway	6360	1/1	12.6	8.6	14.9
Mud Flat	Owyhee	5730	1/1	4.8	NA	--
Oxford Spring	Malad	6740	1/1	4.6	NA	--
Phillips Bench	Salmon Falls	8200	1/1	15.4	14.2	--
Pole Creek Ranger Station	Salmon Falls	8330	1/1	10.6	16.4	--
Prairie	Boise	4800	1/1	NA	NA	--
Salt River Summit	Salt	7700	1/1	5.9	9.7	--
Savage Pass	Lochsa	6170	1/1	17.4	8.9	10.5
Schweitzer Basin	Pend Oreille	6090	1/1	36.4	19.2	24.3
Secesh Summit	Payette	6520	1/1	24.5	15.2	14.9
Shanghai Summit	Clearwater	4570	1/1	23.7	NA	12.4
Sheep Mountain	Willow	6570	1/1	7.5	9.9	1.6
Sherwin	St. Maries	3200	1/1	9.7	5.7	5.9
Slug Creek Divide	Blackfoot	7225	1/1	8.6	12.3	7.6
Snider Basin	Green	8060	1/1	6.1	8.2	--
Somsen Ranch	Willow Creek	6800	1/1	7.4	10.1	4.6

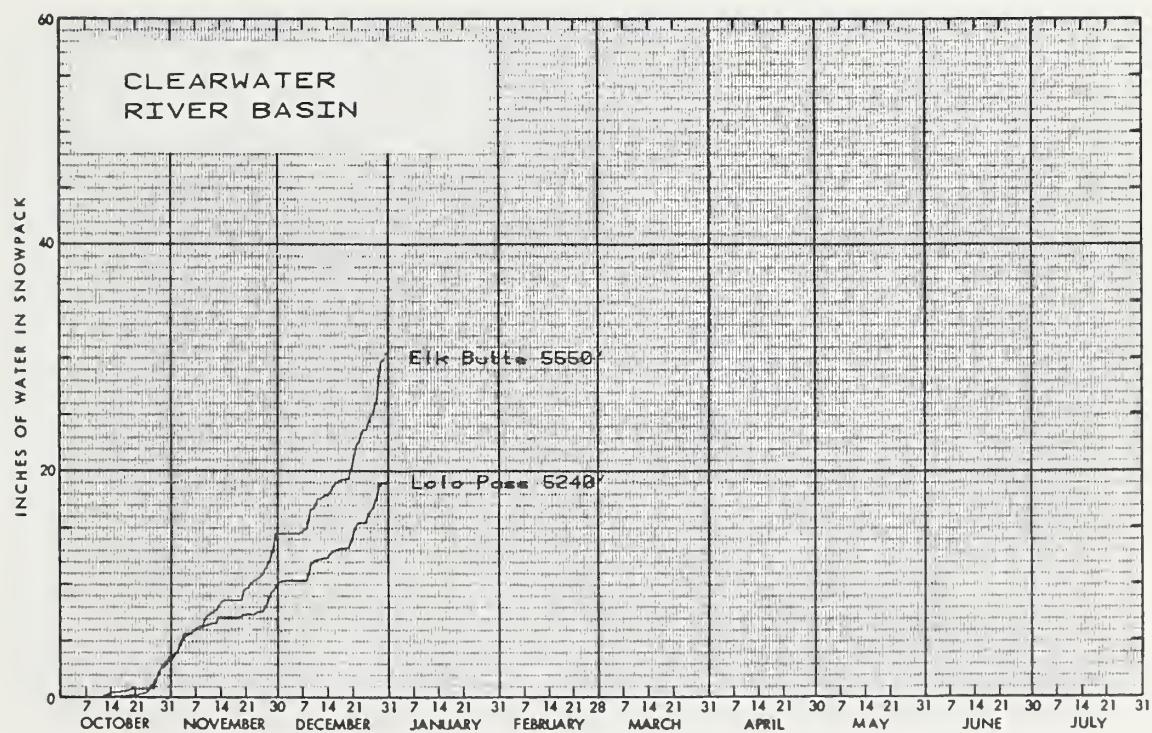
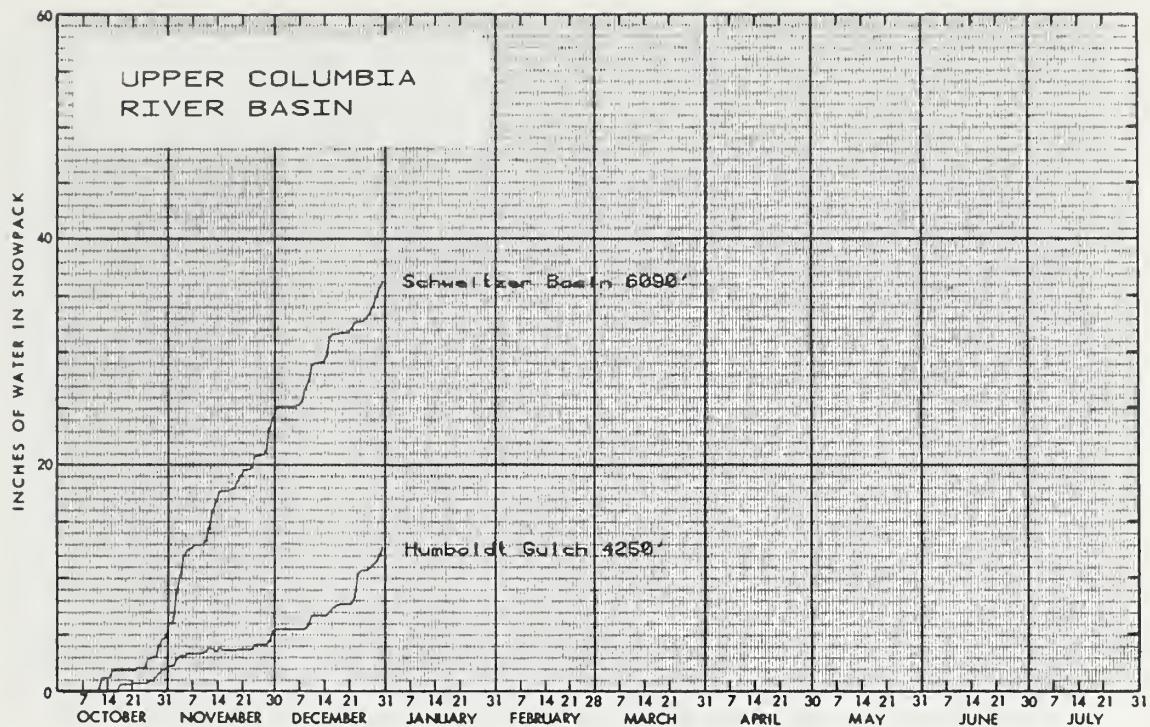
1/ Estimated 1961-1980 20 year average.

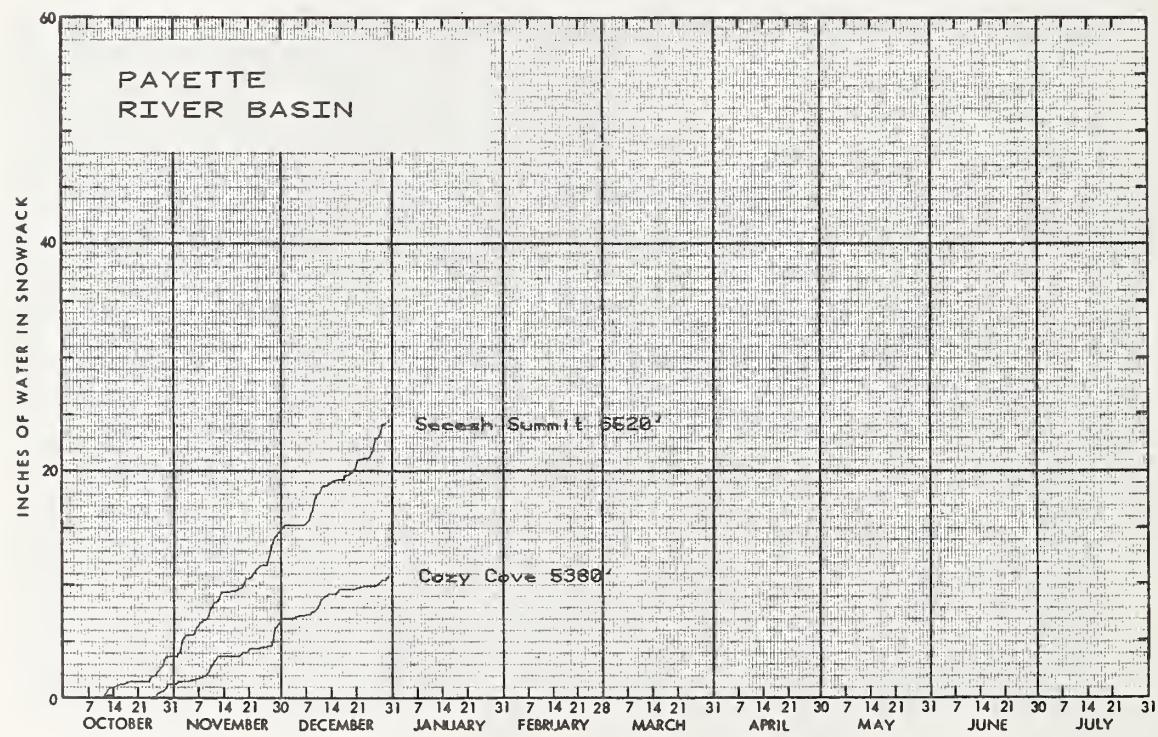
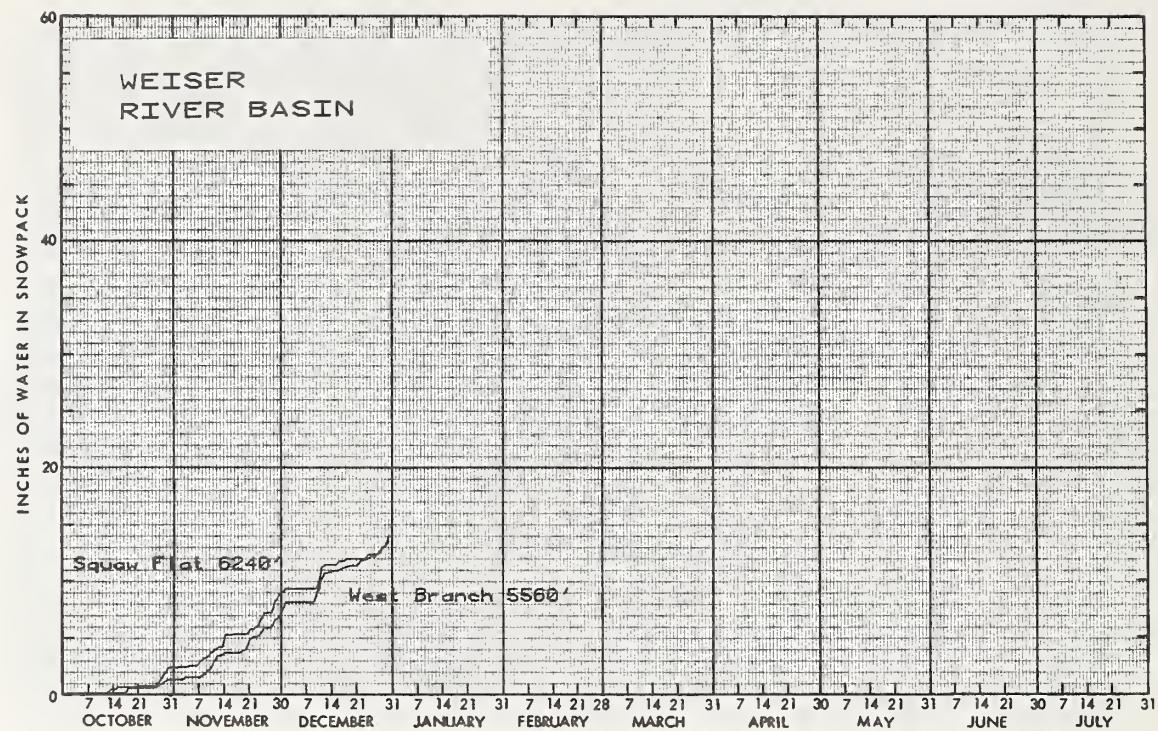
NA Data not available

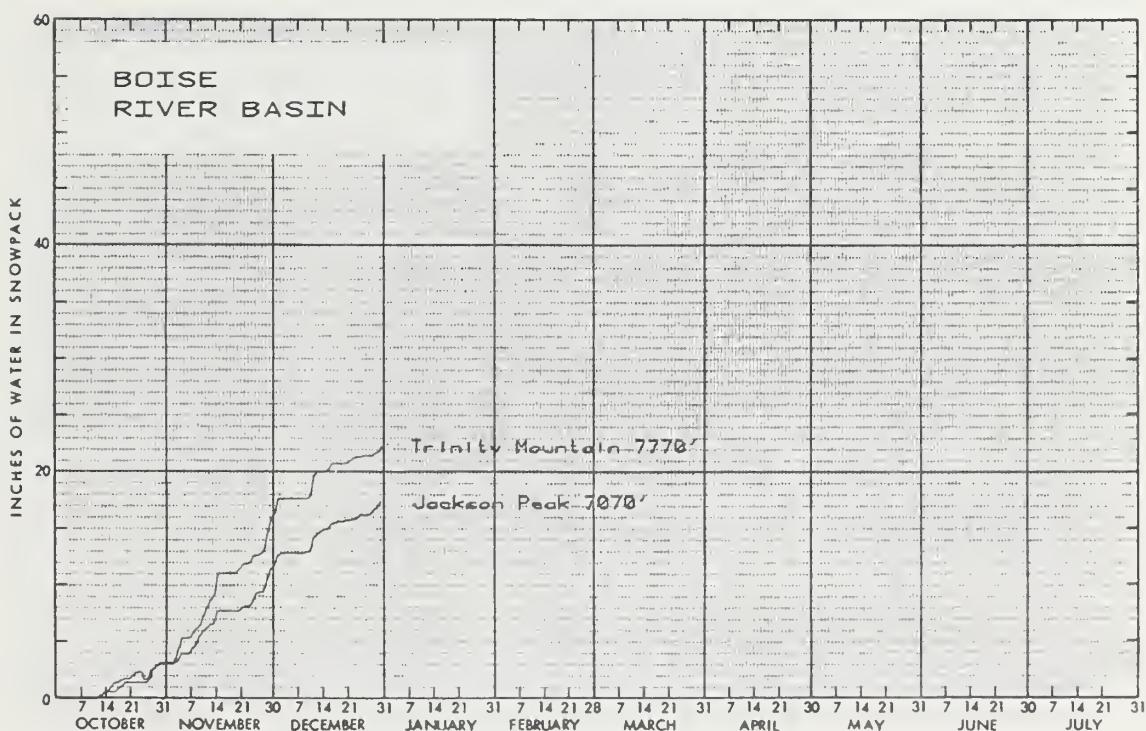
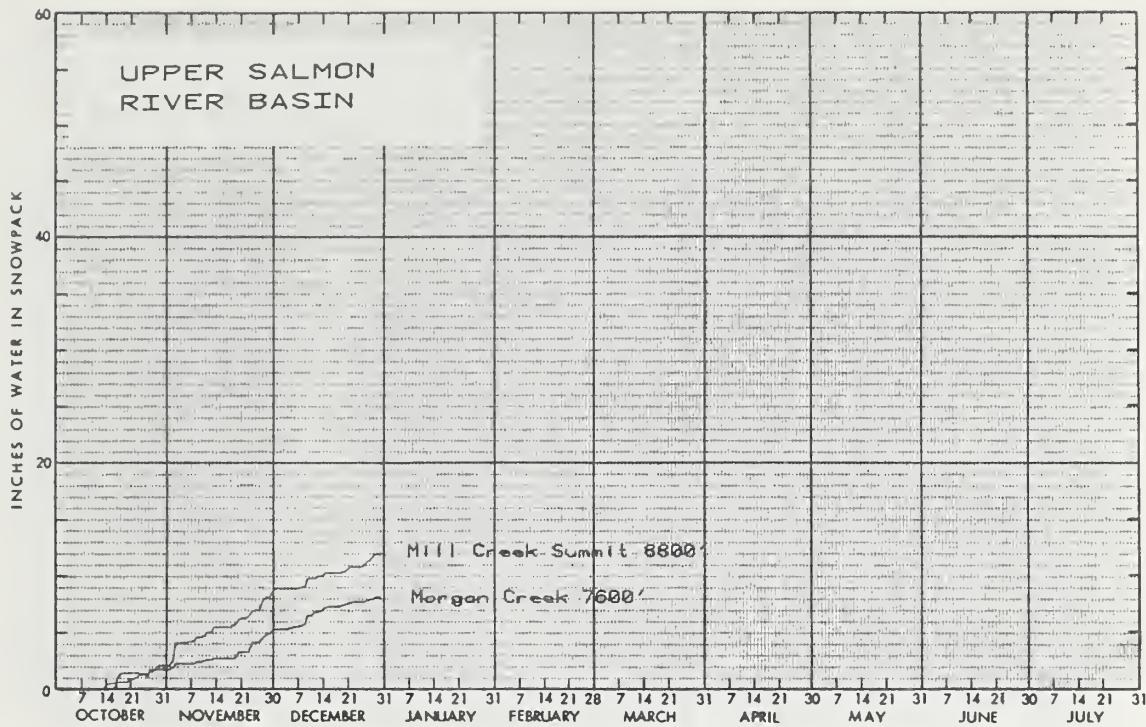
SNOW PILLOW DATA

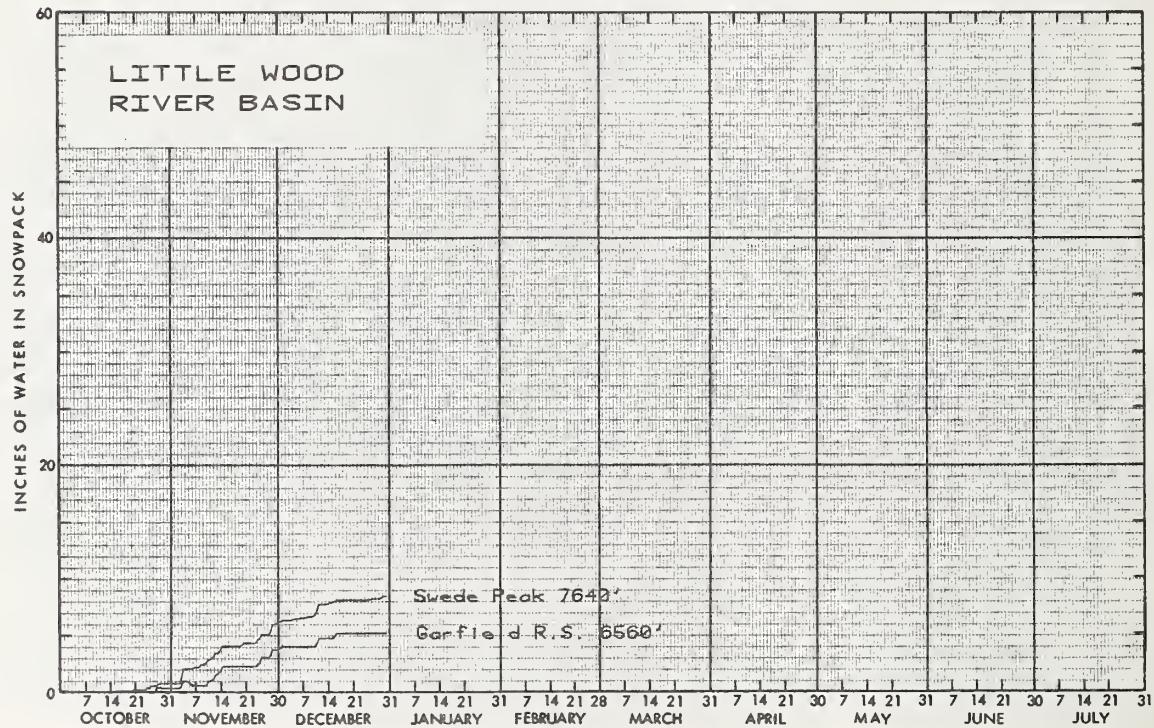
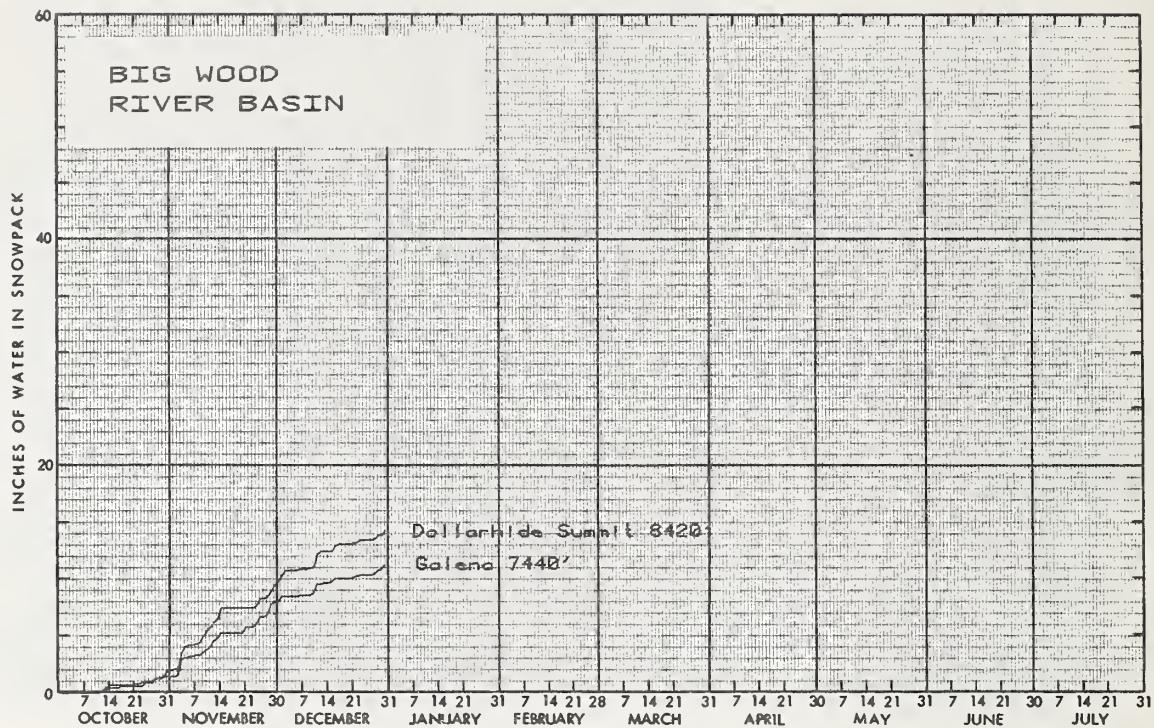
Data Site Name	Drainage	Elevation	This Year		Past Record	
			Date	Water Content (inches)	Last Year	61-80 1/ Average
South Mountain	Jordan-Owyhee	6500	1/1	12.5	21.5	2.9
Spring Creek Divide	Green	9000	1/1	NA	16.1	--
Squaw Flat	Weiser	6240	1/1	14.3	8.9	6.5
Stickney Mill	Big Lost	7430	1/1	4.7	5.1	2.4
Sunset	Coeur d'Alene	5540	1/1	26.2	12.3	--
Swede Peak	Little Wood	7640	1/1	8.5	9.7	5.9
Togwotee Pass	Upper Snake	9580	1/1	12.0	13.6	--
Touchet #2	Touchet	5530	1/1	34.0	12.3	--
Trinity Mountain	Boise	7770	1/1	22.7	24.5	17.9
Two Ocean Plateau	Upper Snake	9160	1/1	15.7	14.8	--
Vienna Mine	Salmon	8960	1/1	20.6	NA	15.0
West Branch	Weiser	5560	1/1	13.6	11.8	10.9
White Elephant	Henry's Fork	7710	1/1	14.3	13.7	10.2
Wildhorse Divide	Portneuf	6490	1/1	NA	NA	--
Willow Creek	Greys	8450	1/1	16.6	21.8	--

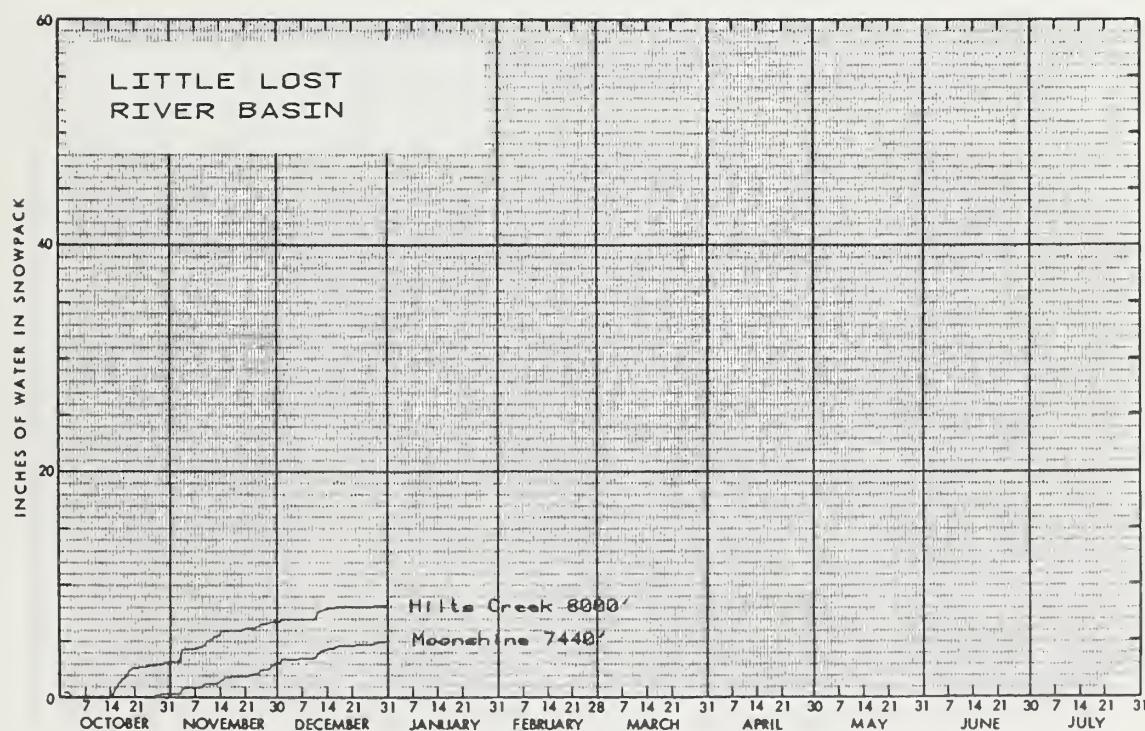
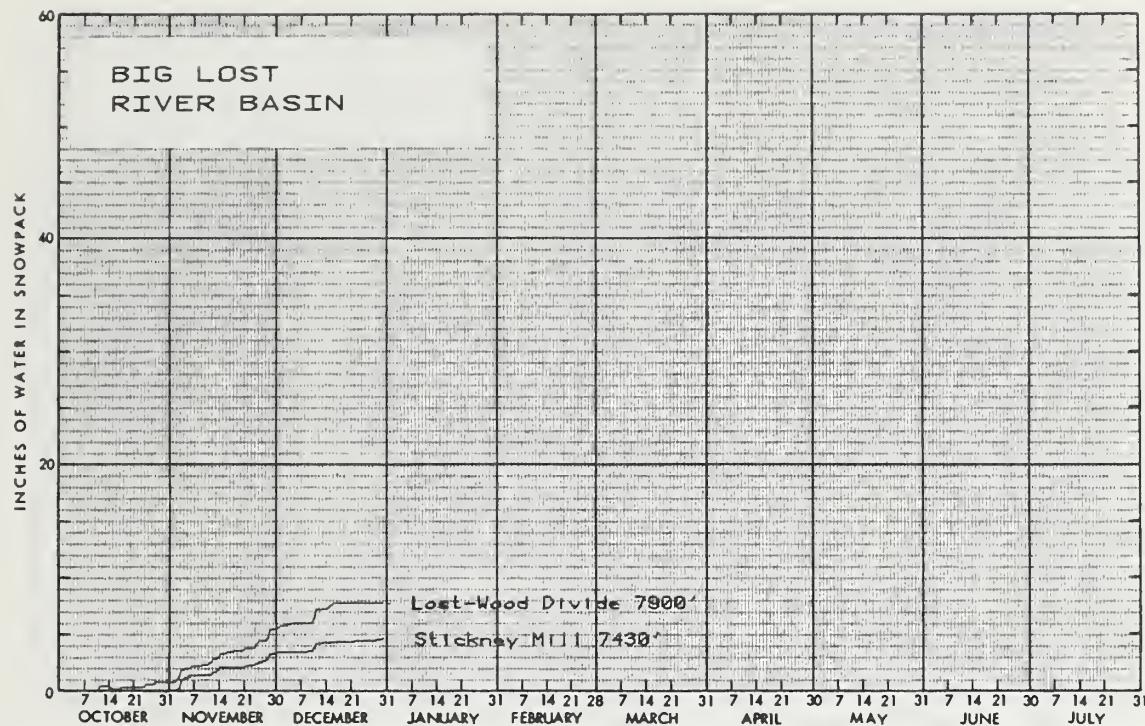
1/ Estimated 1961-1980 20 year average.
NA Data not available

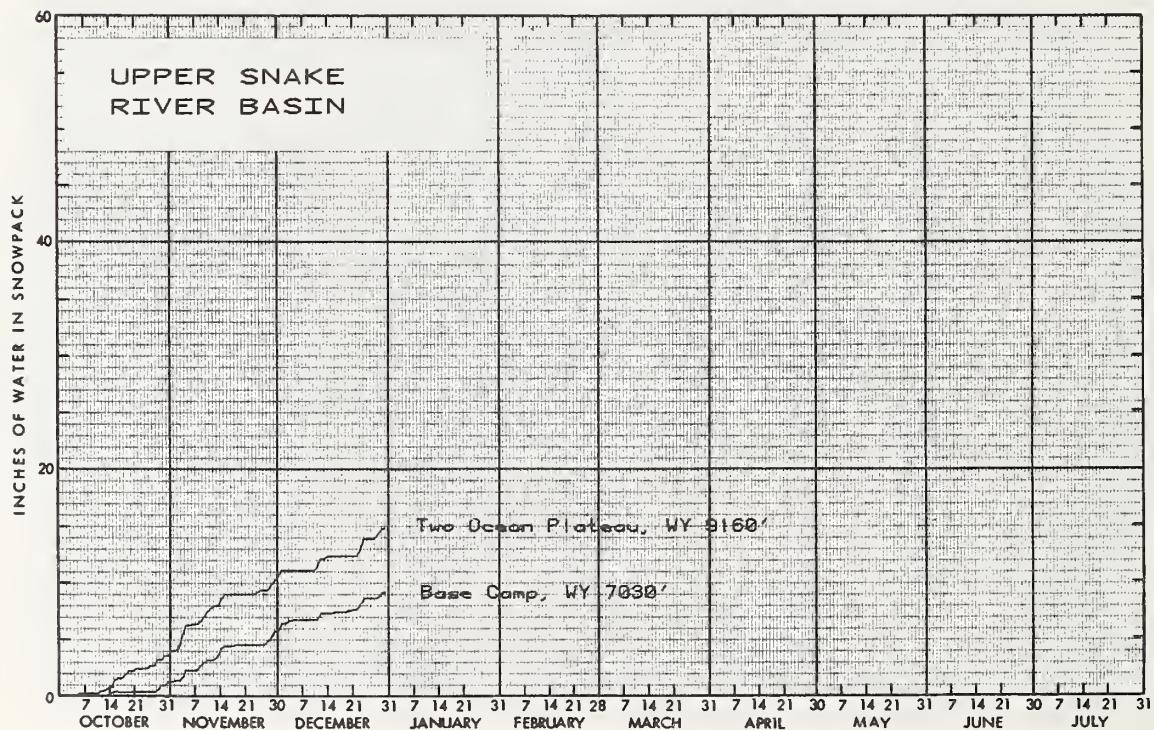
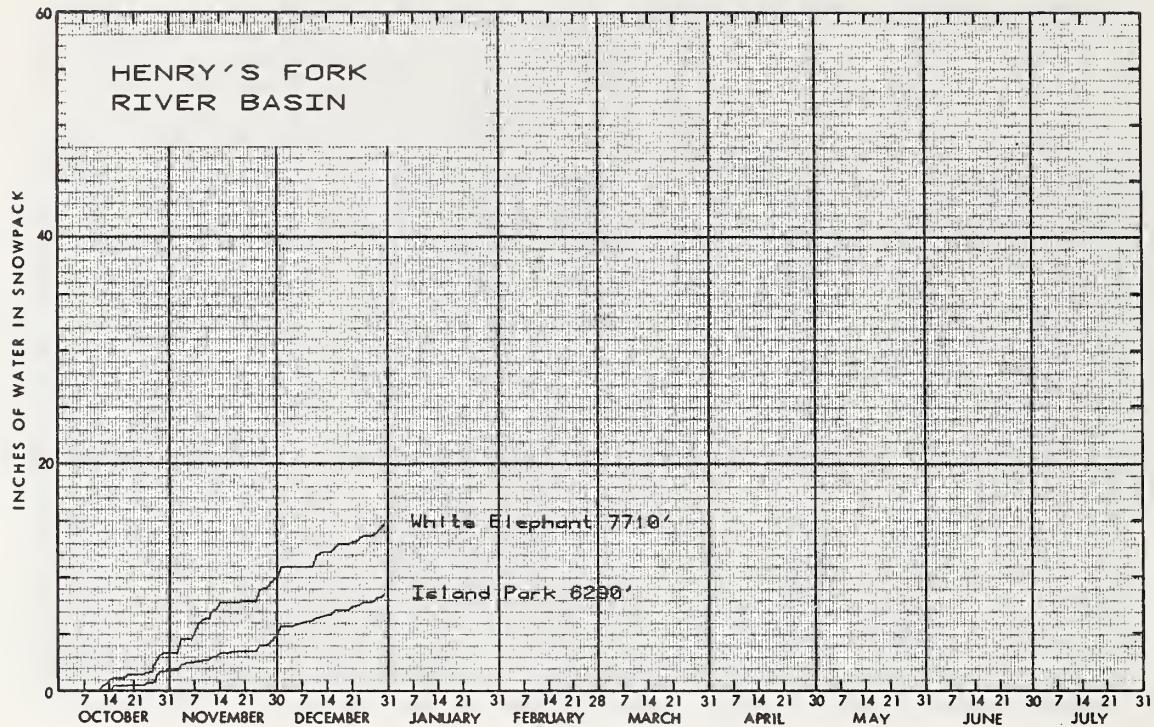


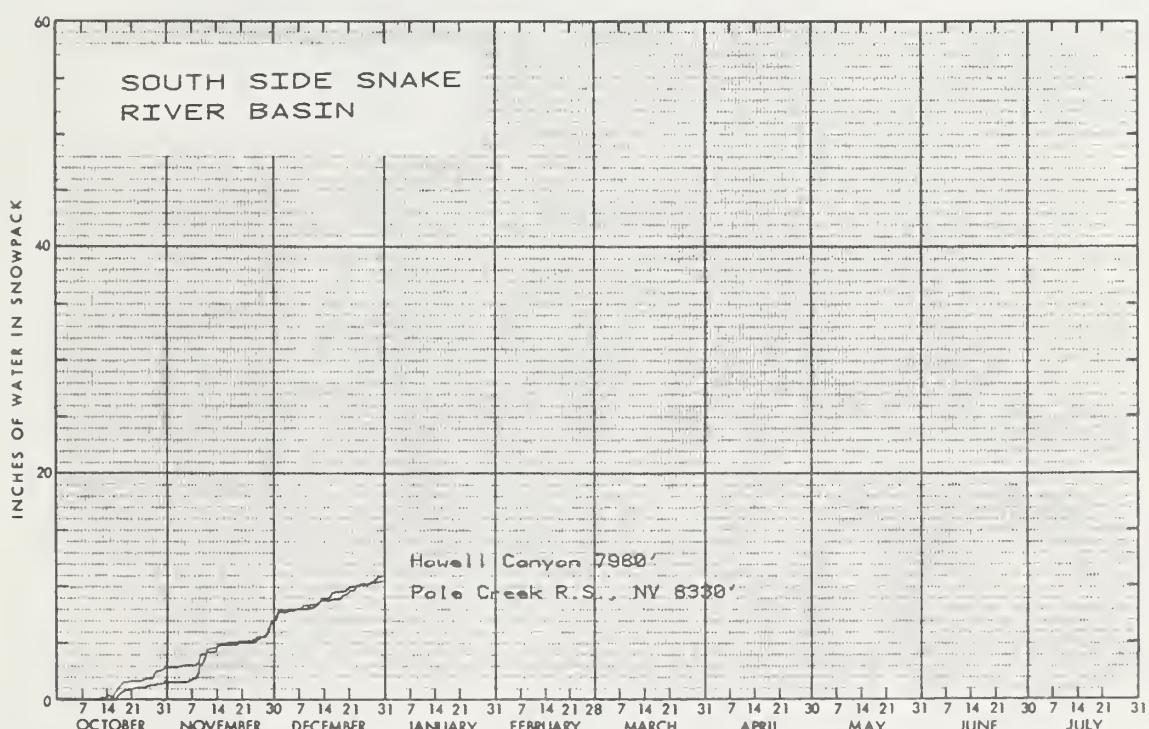
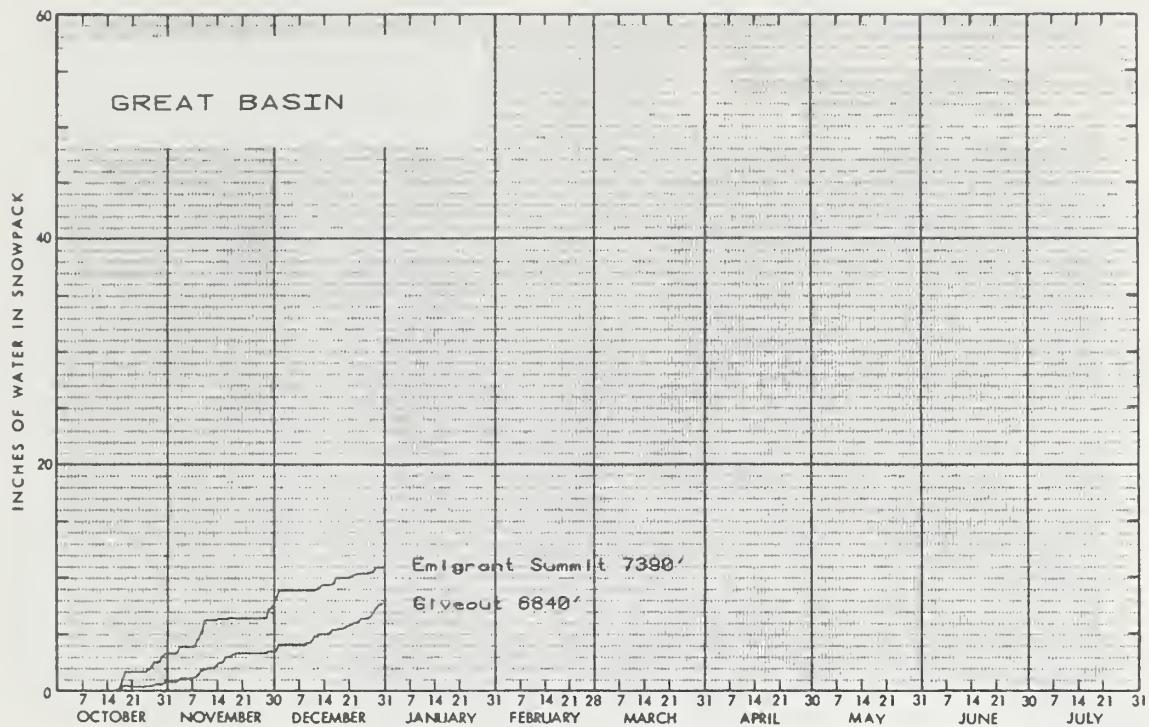


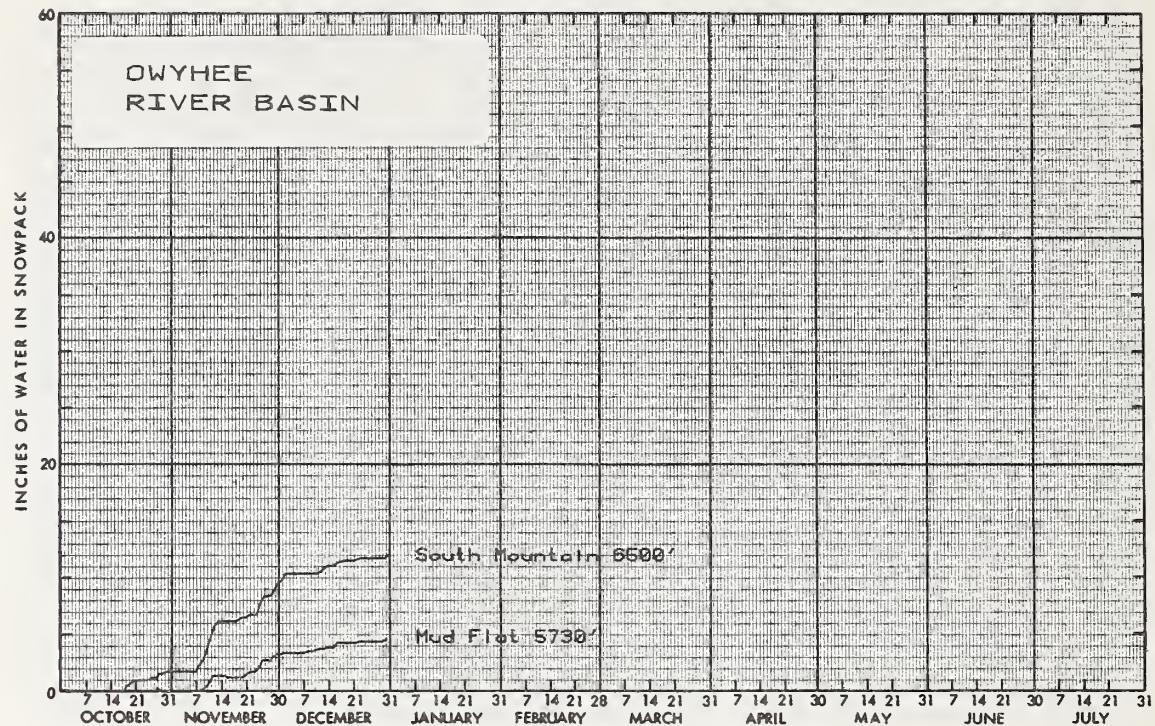












UPPER COLUMBIA and LOWER SNAKE RIVER BASINS

A horizontal scale bar with markings at 0, 25, 50, and 75 miles. The word "SCALE" is centered below the bar, and "IN MILES" is written to its right.

LEGEND

— Watershed Boundary
 — Soil Conservation District Bdry
 — County Boundary
 ▲ Forecast Point
 ● Snow Course
 ↗ Snow Course and Automated Site
 † Aerial Snow Depth Gage

WATERSHED LOCATIONS



INDEX to SNOW COURSES

UPPER COLUMBIA BASIN

LOWER SNAKE BASIN

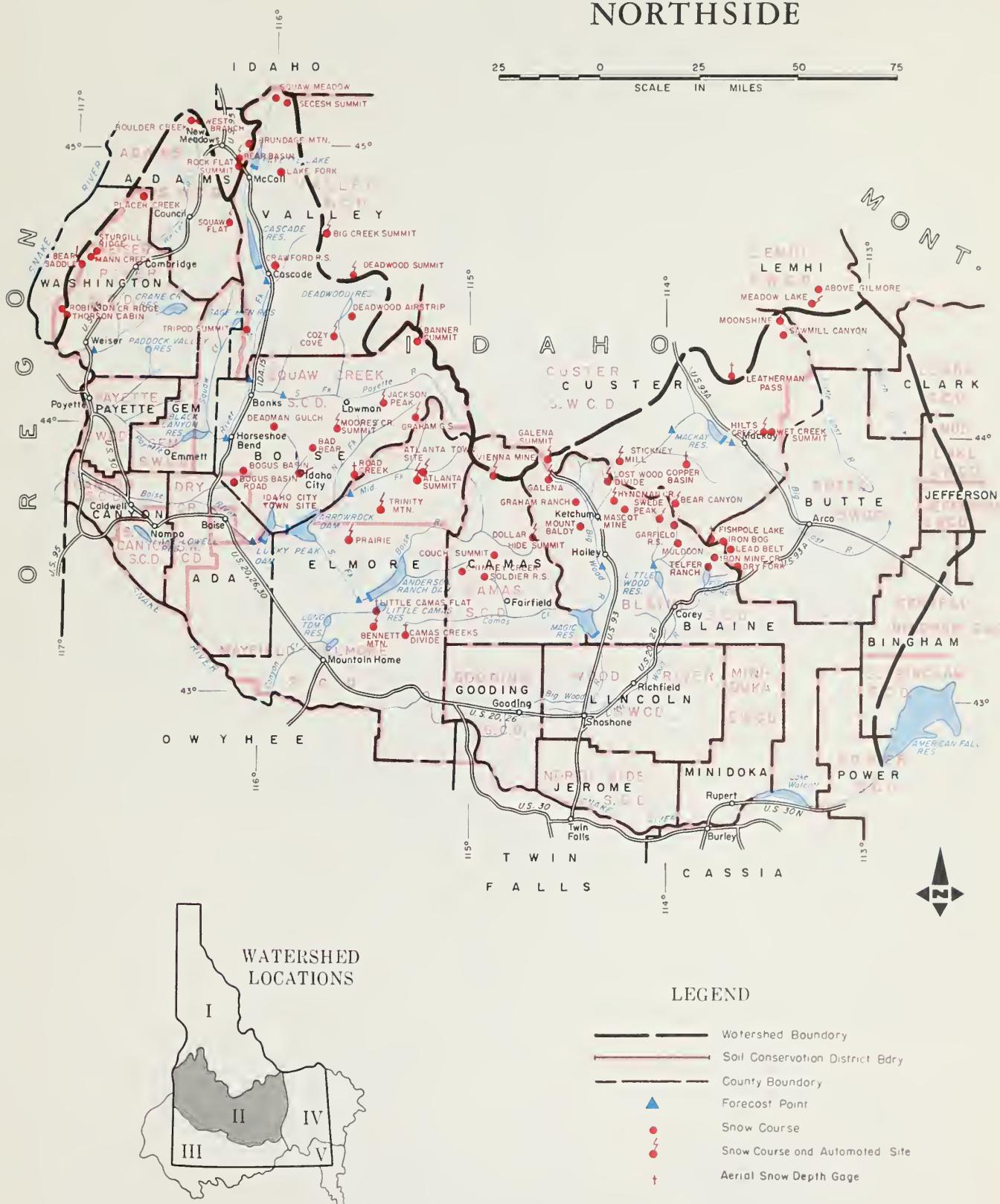
No.	State	Name	Sec.	Twp.	Rge.	Elev	No.	State	Name	Sec.	Twp.	Rge.	Elev							
			Lat.	or And	Long.					Lat.	or And	Long.								
KOOTENAI RIVER																				
16A1	I	Smith Creek	29	64N	3W	4800	16C3	I	East Twin	13	40N	5W	4130							
							16C2	I	Moscow Mountain	18	40N	4W	4410							
							16C4	I	West Twin	14	40N	5W	4220							
PEND OREILLE-PRIEST RIVER																				
16A8S	I	Bear Mountain	9	57N	3E	5400	15B20	I	Breezy Saddle	1	43N	4E	5010							
16A2	I	Benton Meadow	27	58N	4W	2370	15D5	I	Buck Meadows	27	31N	8E	5650							
16A3	I	Benton Spring	30	58N	3W	4920	15C3	I	Cayuse Airstrip	4	38N	11E	3500							
16A10S	I	Schweitzer Basin	18	58N	2W	6090	15C16	I	Cool Creek	35	40N	9E	6280							
16A6	I	Schweitzer Bowl	20	58N	2W	4800	15C7	I	Coolwater Mountain	31	33N	8E	6040							
16A5	I	Schweitzer Ridge	19	58N	2W	6200	15C9A	I	Crater Meadows	11	37N	9E	5960							
HAYDEN CREEK																				
16B8	I	Chilco Ridge	15	52N	2W	3650	16C11	I	Crooked Fork	27	37N	14E	3610							
16B7	I	Conie Ridge	22	52N	2W	3900	16C15S	I	Elk Butte	6	40N	3E	5550							
16B9	I	Corner Creek	22	52N	2W	3150	15C2A	I	Fish Lake Airstrip	34	35N	11E	5650							
16B6	I	Sage Creek Sadler	10	52N	2W	4080	15B3A	I	Forty-nine Meadows	6	43N	5E	4830							
SPOKANE RIVER																				
15B8	I	Above Burke	11	48N	5E	4100	14C9A	I	Goat Lake	3	38N	13E	6500							
15B7	I	Above Roland	35	47N	6E	4350	15C6SR	I	Hemlock Butte	7	36N	7E	5810							
15B6	I	Below Roland	35	47N	6E	3920	15C10S	M	Hoodoo Basin	17	14N	27W	6000							
16B2	I	Copper Ridge	6	50N	1W	4820	15C1	M	Hoodoo Creek	16	14N	27W	5900							
16B3	I	Fourth of July Summit	6	49N	1W	3200	14D3	I	Kit Carson Pasture	4	27N	15E	4950							
15B13A	I	Granite Peak	4	42N	8E	6000	16C17	I	Kruze Meadows	11	32N	4W	4780							
15B21S	I	Humboldt Gulch	2	48N	5E	4250	14C5S	I	Lolo Pass	16	38N	15E	5240							
16B5A	I	Kellog Peak	19	48N	3E	5560	15B14S	I	Lost Lake	9	43N	4E	6110							
15B2S	I	Lookout	4	47N	6E	5140	15D6S	I	Mountain Meadows	9	27N	10E	6360							
16B1	I	Lower Sands Creek	32	51N	1W	3120	14D1	M	Nez Perce Pass	25	1S	24W	6570							
16A4AS	I	Mosquito Ridge	5	54N	2E	5200	15C5	I	Pierce Ranger Station	2	36N	5E	3080							
15B5A	I	Roland Summit	26	47N	6E	5120	14C4S	I	Savage Pass	18	36N	15E	6170							
16C1S	I	Sherwin	28	42N	1E	3200	15C4S	I	Shanghai Summit	7	37N	6E	4600							
16B11	I	Skitwish Ridge	6	50N	1W	4850	16C18	I	Soldier Meadows	33	33N	3W	4650							
15B9AS	I	Sunset	33	49N	5E	5540	PALOUSE RIVER													
16B12	I	Twin Spirit Divide	29	53N	5W	3480	CLEARWATER RIVER													
SALMON RIVER																				
13E19	I	Above Gilmore					13E19	I	Above Gilmore	13 ³	13N	26E	8240							
13E21A	I	Aspen-Hall Pass					13E21A	I	Aspen-Hall Pass	6	16N	28E	8200							
16E11S	I	Bear Basin					16E11S	I	Bear Basin	30	19N	3E	5350							
15E2S	I	Big Creek Summit					15E2S	I	Big Creek Summit	24	15N	5E	6580							
13E8A	I	Borah					13E8A	I	Borah	21	10N	23E	8250							
16D6	I	Brundage Mountain					16D6	I	Brundage Mountain	6	19N	3E	7560							
14E08	I	Bruno Creek					14E08	I	Bruno Creek	25	12N	16E	7920							
13E17	I	Copes Camp					13E17	I	Copes Camp	36	18N	22E	7520							
13E25A	I	Double Springs Pass					13E25A	I	Double Springs Pass	3	10N	22E	8400							
13D2	M	Gibbons Pass					13D2	M	Gibbons Pass	4	2S	19W	7100							
13E20	I	Hall Creek					13E20	I	Hall Creek	1	16N	27E	7560							
13E24A	I	Leatherman Pass					13E24A	I	Leatherman Pass	20	9N	23E	9860							
13E1	M	Lemhi Pass					13E1	M	Lemhi Pass	9	10S	15W	7480							
13E23S	M	Lemhi Ridge					13E23S	M	Lemhi Ridge	4	10S	15W	8100							
13E18S	I	Meadow Lake					13E18S	I	Meadow Lake	26	13N	26E	9150							
14E1S	I	Mill Creek Summit					14E1S	I	Mill Creek Summit	8	13N	17E	8800							
13D16S	I	Moose Creek					13D16S	I	Moose Creek	14	27N	21E	6200							
14E4S	I	Morgan Creek					14E4S	I	Morgan Creek	31	18N	19E	7600							
13E26	I	Morse Creek Sawmill					13E26	I	Morse Creek Sawmill	8	15N	23E	7120							
14D5	I	Perreau Meadows					14D5	I	Perreau Meadows	23	21N	20E	8500							
14E7	I	Redfish Lake Flat					14E7	I	Redfish Lake Flat	35	10N	13E	6560							
13E16	I	Schwartz Lake					13E16	I	Schwartz Lake	34	18N	22E	8540							
14E3A	I	Twin Peaks					14E3A	I	Twin Peaks	28	15N	17E	9190							
14F4S	I	Vienna Mine					14F4S	I	Vienna Mine	1	5N	13E	8960							
14D4	I	Williams Creek Summit					14D4	I	Williams Creek Summit	34	21N	20E	7990							

LEGEND

Numbering System (example)

- 10J7 Snow course only
- 10J7A Snow course and/or aerial marker
- 10J7S Snow course and snotel site
- 10J7R Radioactive gage

MIDDLE SNAKE RIVER BASIN NORTHSIDE



INDEX to SNOW COURSES

MIDDLE SNAKE RIVER BASIN NORTHSIDE

No.	State	Name	Sec. Lat.	Twp. or And	Rge. Long.	Elev	No.	State	Name	Sec. Lat.	Twp. or And	Rge. Long.	Elev								
LITTLE LOST RIVER																					
13E27S	I	Hilts Creek	15	8N	25E	8000	14F10	I	Couch Summit	9	2N	14E	6840								
13E6S	I	Moonshine	31	13N	26E	7440	16F1	I	Deadman Gulch	29	7N	4E	5600								
13E4	I	Sawmill Canyon	17	12N	26E	7000	15F14S	I	Graham Guard Station	9	7N	10E	5690								
13E7	I	Wet Creek Summit	15	8N	25E	7680	15F16	I	Idaho City Townsite	26	6N	5E	4000								
BIG LOST RIVER																					
13F3S	I	Bear Canyon	22	5N	21E	7900	15F19S	I	Jackson Peak	7	8N	9E	7070								
13F2	I	Copper Basin	26	6N	21E	7640	15F15	I	Moores Creek Summit	19	7N	7E	6100								
13F20	I	Dry Fork	23	3N	23E	7220	15F6S	I	Prairie	13	2N	7E	4800								
13F8	I	Fishpole Lake	28	4N	22E	9300	15F3	I	Road Creek	5	5N	8E	5380								
13F11	I	Iron Bog	23	4N	22E	7650	15F5S	I	Trinity Mountain	6	3N	9E	7770								
13F12	I	Leadbelt	34	4N	23E	6700	BOISE RIVER (cont.)														
14F3S	I	Lost Wood Divide	25	6N	18E	7900	CANYON CREEK														
14F2S	I	Stickney Mill	9	6N	19E	7430	15F7S	I	Bennett Mountain	7	2S	9E	6560								
BIG WOOD RIVER														15F12	I	Little Camas Flat	21	1S	9E	4940	
15F9	I	Camas Creeks Divide	11	2S	9E	5710	PAYETTE RIVER														
15F15	I	Chimney Creek	9	1N	12E	6400	15E11S	I	Banner Summit	11	11N	10E	7040								
14F8S	I	Dollarhide Summit	9	3N	15E	8420	16F2	I	Bogus Basin	16	5N	3E	6340								
14F1	I	Galena	4	6N	15E	7440	15E8S	I	Cozy Cove	17	11N	7E	5380								
14F17S	I	Galena Snotel	4	6N	15E	7470	15E3	I	Crawford Ranger Station	21	14N	4E	4860								
14F12S	I	Galena Summit	7	6N	15E	8780	15E10	I	Deadwood Airstrip	8	11N	7E	5360								
14F5	I	Graham Ranch	10	5N	17E	6270	15E4S	I	Deadwood Summit	13	14N	7E	6860								
14F16S	I	Hyndman Creek	2	4N	19E	7440	15E1	I	Lake Fork	3	18N	4E	5290								
14F7	I	Mascot Mine	8	4N	20E	7780	16E1	I	Rock Flat Summit	1	18N	2E	5310								
14F9	I	Mount Baldy	23	4N	17E	8920	15D1S	I	Secesh Summit	4	21N	4E	6520								
14F11	I	Soldier Ranger Station	29	2N	14E	5740	15D2	I	Squaw Meadow	17	21N	4E	5900								
LITTLE WOOD RIVER														16E3	I	Tripod Summit	17	11N	3E	5260	
13F4S	I	Garfield Ranger Station	11	3N	21E	6560	WEISER RIVER														
13F5	I	Muldoon	26	3N	21E	6320	16D1	I	Boulder Creek	16	20N	1W	5440								
13F9S	I	Swede Peak	4	3N	21E	7640	16E2	I	Placer Creek	15	17N	3W	5860								
FISH CREEK														16E5S	I	Squaw Flat	32	17N	2E	6240	
13F10	I	Iron Mine Creek	33	3N	23E	6300	16D8S	I	West Branch	15	20N	1W	5560								
13F6	I	Telfer Ranch	7	2N	23E	5840	MANN CREEK														
BOISE RIVER														6E10S	I	Bear Saddle	29	15N	5W	6180	
15F17	I	Atlanta Townsite	3	5N	11E	5370	16E9	I	Mann Creek	20	15N	5W	6080								
15F4S	I	Atlanta Summit	23	5N	10E	7580	17E1	I	Robinson Creek Ridge	2	14N	6W	6220								
15F2	I	Bad Bear	35	7N	6E	4940	16E8	I	Sturgill Ridge	28	15N	5W	6680								
16F4	I	Bogus Basin Road	32	5N	3E	5540	17E2	I	Thorson Cabin	12	14N	6W	5320								

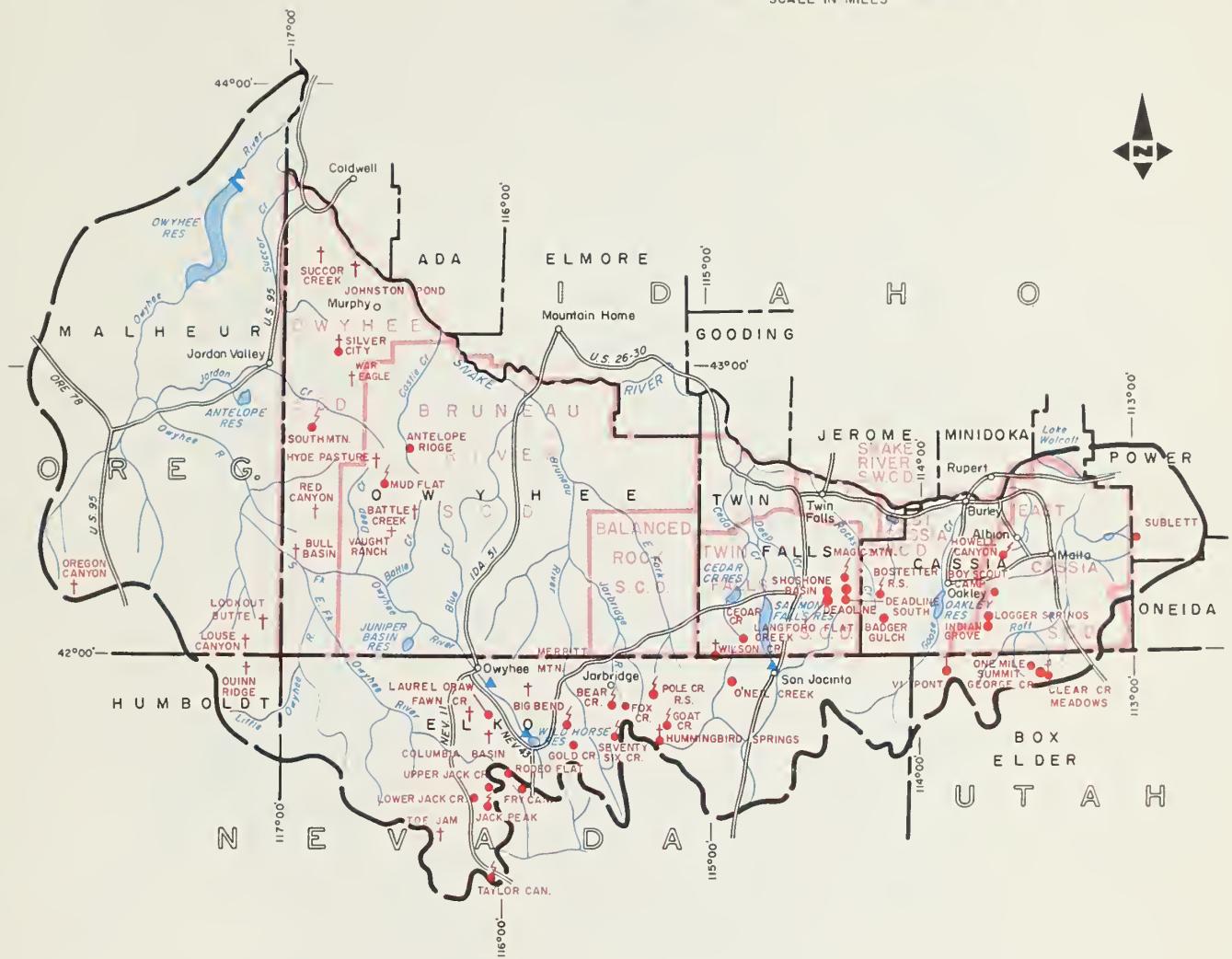
LEGEND

Numbering System (example)

- 10J7 Snow course only
- 10J7A Snow course and/or aerial marker
- 10J7S Snow course and snotel site
- 10J7R Radioactive gage

MIDDLE SNAKE RIVER BASIN SOUTHSIDE

SCALE IN MILES



LEGEND

- Watershed Boundary
- Soil Conservation District Bdry
- County Boundary
- ▲ Forecast Point
- Snow Course
- ⚡ Snow Course and Automated Site
- ↑ Aerial Snow Depth Gage

WATERSHED LOCATIONS



INDEX to SNOW COURSES

MIDDLE SNAKE RIVER BASIN SOUTHSIDE

No.	State	Name	Sec.	Twp.	Rge.	Elevation
			Lat.	And	Long.	
RAFT RIVER						
13G2	I	Boy Scout Camp	8	14S	24E	7740
13H2	U	Clear Creek Meadows	26	14N	14W	9420
13H5	U	George Creek	26	14N	14W	8840
13G1S	I	Howell Canyon	2	13S	24E	7980
13G4	I	Indian Grove	14	15S	23E	7560
13G3	I	Logger Springs	2	15S	23E	8120
13H1	U	One Mile Summit	17	14N	14W	7330
12G8	I	Sublett	17	12S	30E	5950
GOOSE - TRAPPER CREEK						
14G3	I	Badger Gulch	24	15S	19E	6660
14G1S	I	Bostetter Ranger Station	35	14S	19E	7500
13H3A	U	Vi Pont	17	14N	17W	7670
SALMON FALLS CREEK						
14G5	I	Cedar Creek	26	15S	13E	6800
14G4	I	Deadline	25	14S	18E	6900
14G10	I	Deadline South	25	14S	18E	7450
15H13S	N	Goat Creek	31	46N	60E	8880
14G08	I	Langford Flat Creek	8	15S	18E	5980
14G2S	I	Magic Mountain	25	14S	18E	6880
15H19	N	O'Neil Creek	21	46N	61E	6540
14G6	I	Shoshone Basin	24	14S	17E	5810
15G2	I	Wilson Creek	24	16S	12E	7500
BRUNEAU RIVER						
15H1S	N	Bear Creek	31	46N	58E	8040
15H2	N	Fox Creek	33	46N	58E	6750
15H15	N	Hummingbird Springs	12	45N	59E	8870
15H14S	N	Pole Creek Ranger Station	13	46N	59E	8330
15H3S	N	Seventy-six Creek	6	44N	58E	7100
OWYHEE RIVER						
16G6	I	Antelope Ridge	3	9S	1W	6180
16G9A	I	Battle Creek	10	11S	1E	5720
15H4S	N	Big Bend	30	45N	56E	6700
16G10A	I	Bull Basin	29	12S	5W	5460
16H6A	N	Columbia Basin	31	44N	53E	6650
16H8A	N	Fawn Creek	2	45N	52E	7000
15H7	N	Fry Canyon	31	43N	54E	6700
15H5	N	Gold Creek	32	45N	56E	6600
16G5A	I	Hyde Pasture	31	8S	2W	5760
16H4S	N	Jacks Peak	21	42N	53E	8420
16F5A	I	Johnston Pond	5	4S	4W	6700
16H5S	N	Laurel Draw	20	45N	53E	6700
17G6A	O	Lookout Butte	2	40S	47E	5650
17G4A	O	Louse Canyon	27	40S	44E	6440
16H1M	N	Lower Jack Creek	18	42N	53E	6800
15H20A	N	Merritt Mountain	10	46N	54E	7000
16G7S	I	Mud Flat	34	9S	2W	5730
17G5A	O	Oregon Canyon	8	40S	40E	6950
17H6A	N	Quinn Ridge	9	47N	41E	6300
16G11A	I	Red Canyon	32	11S	4W	6650
15H6M	N	Rodeo Flat	36	43N	53E	6800
16F3	I	Silver City	7	5S	3W	6400
16G1S	I	South Mountain	35	7S	5W	6500
16F6A	I	Succor Creek	25	3S	5W	6100
15H9S	N	Taylor Canyon	35	39N	53E	6200
16H7A	N	Toe Jam	29	40N	50E	7700
16H2	N	Upper Jack Creek	9	42N	53E	7250
16G12A	I	Vaught Ranch	23	11S	1W	5830
16G13A	I	War Eagle	16	5S	3W	7720

LEGEND

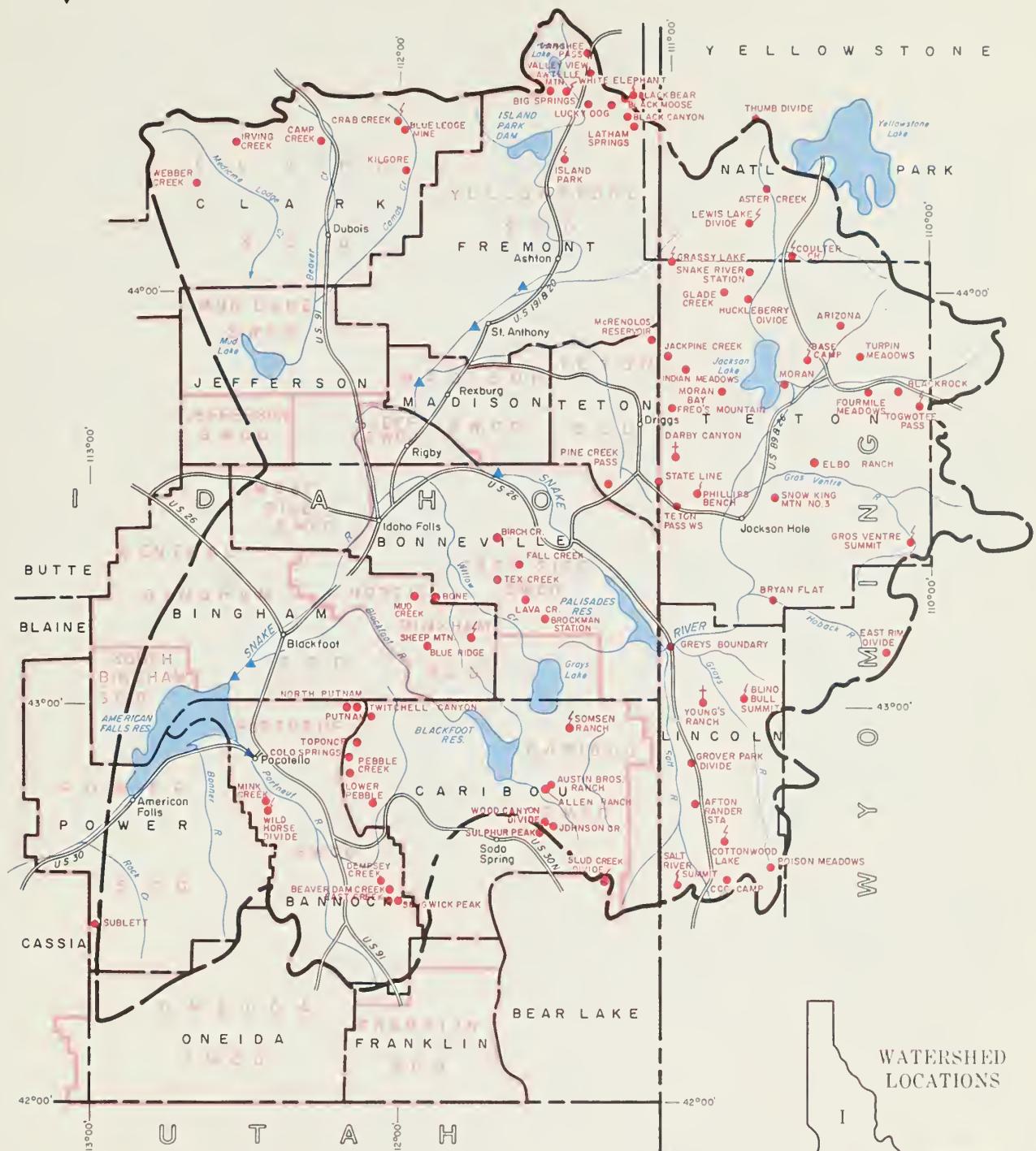
Numbering System (example)

- 10J7 Snow course only
- 10J7A Snow course and/or aerial marker
- 10J7S Snow course and snotel site
- 10J7R Radioactive gage

UPPER SNAKE RIVER BASIN



A horizontal scale bar with tick marks at 0, 25, and 50 miles. The word "SCALE IN MILES" is centered below the bar.



LEGEND

- Watershed Boundary
- Soil Conservation District Bdry
- County Boundary
- ▲ Forecast Point
- Snow Course
- Snow Course and Automated Site
- ↑ Aerial Snow Depth Gage



INDEX to SNOW COURSES

UPPER SNAKE RIVER BASIN

No.	State	Name	Sec.	Twp.	Rge.	Elev		No.	State	Name	Sec.	Twp.	Rge.	Elev
			Lat.	And	Long.						Lat.	And	Long.	
SNAKE RIVER-WYOMING														
10G4	Wy	Afton Ranger Station	30	32N	118W	6240		11E11	I	Blue Ledge Mine	21	13N	38E	6900
10F1	Wy	Arizona	3	46N	115W	6820		12E3	I	Camp Creek	21	13N	36E	6580
10E8	Wy	Aster Creek	44°17'		110°38'	7750		11E37S	I	Crab Creek	21	13N	38E	6860
10F2S	Wy	Base Camp	20	46N	113W	7030		11E12	I	Kilgore	6	12N	39E	6320
10F7S	Wy	Blackrock	4	44N	111W	8900								
10G2S	Wy	Blind Bull	6	34N	115W	8650								
10F14	Wy	Bryan Flat	9	38N	115W	6420								
10G7	Wy	CCC Camp	9	29N	118W	7000		12E4	I	Irving Creek	8	13N	33E	7280
10GSS	Wy	Cottonwood Lake	25	31N	118W	7600		12E5	I	Webber Creek	23	12N	32E	6700
10E10S	Wy	Coulter Creek	44°10'		110°33'	7020								
10F17	Wy	East Rim Divide	32	37N	111W	7930								
10F28	Wy	Elbo Ranch	25	43N	115W	7100								
10F6	Wy	Four Mile Meadows	35	45N	112W	7860		11F3	I	Birch Creek	36	2N	41E	6800
10E13	Wy	Glade Creek	12	48N	116W	7040		11F8	I	Bone	29	1S	40E	6200
10F18	Wy	Greys Boundary	33	37N	118W	5720		11F16	I	Brockman Station	19	2S	43E	6430
10F19S	Wy	Gros Ventre Summit	36	40N	111W	8750		11F19	I	Fall Creek	32	2N	42E	6820
10G3	Wy	Grover Park Divide	27	33N	118W	7000		11F15	I	Lava Creek	27	1S	42E	7350
10E14	Wy	Huckleberry Divide	32	48N	115W	7300		11F14	I	Mud Creek	4	2S	39E	7100
10E9S	Wy	Lewis Lake Divide	44°12'		110°40'	7850		11F11S	I	Sheep Mountain	30	2S	41E	6570
10F4	Wy	Moran	19	45N	114W	6750		11F5	I	Tex Creek	36	1N	41E	6650
10F3	Wy	Moran Bay	14	45N	116W	6810								
10G6	Wy	Poison Meadows	29	30N	116W	8500								
10G8S	Wy	Salt River Summit	32	29N	118W	7700		11G35	I	Allen Ranch	28	7S	43E	6470
10E12	Wy	Snake River Station	9	48N	115W	6920		11G3	I	Austin Brothers Ranch	28	7S	43E	6400
10F20	Wy	Snow King Mountain #3	4	40N	116W	7660		11F17	I	Blue Ridge	35	2S	39E	6780
10E7	Wy	Thumb Divide	44°22'		110°34'	7980		11G36	I	Johnson Creek	4	9S	43E	6730
10F9S	Wy	Togwotee Pass	28	44N	110W	9580		11G55	I	Slug Creek Divide	15	10S	44E	7225
10F5	Wy	Turpin Meadows	14	45N	112W	6900		11G1S	I	Somsen Ranch	25	5S	43E	6800
10G1A	Wy	Young's Ranch	26	34N	116W	6650		11G31	I	Sulphur Peak	8	9S	43E	7070
								11G37	I	Wood Canyon Divide	5	9S	43E	7450
HENRY'S FORK RIVER														
11E9	I	Big Springs	4	13N	44E	6400								
11E35S	M	Black Bear	27	15S	5E	7950		12G21	I	Beaverdam Creek	22	10S	38E	6120
11E18	I	Black Canyon	11	13N	45E	7960		12G16	I	Cold Springs	15	7S	37E	7000
11E19	I	Black Moose	33	14N	45E	8160		12G5	I	Dempsey Creek	18	10S	38E	6100
11E15S	Wy	Grassy Lake	18	48N	116W	7265		11G34	I	East Creek	26	10S	38E	7000
11E10S	I	Island Park	28	13N	43E	6290		12G6	I	Lower Pebble	7	8S	38E	5780
11E16	I	Latham Springs	9	13N	45E	7630		12G1	I	Mink Creek	33	7S	34E	6410
11E14	I	Lucky Dog	2	13N	44E	6860		12G20	I	North Putnam	29	5S	37E	7240
11E32	I	Sawtell Mountain	7	14N	43E	8720		12G2	I	Pebble Creek	35	7S	37E	6400
11E34	I	Targhee Pass	32	16N	44E	6980		12G14	I	Putnam	2	6S	37E	7220
11E8	I	Valley View	12	15N	43E	6680		11G30	I	Sedgwick Peak	30	10S	39E	7850
11E36S	I	White Elephant	17	14N	43E	7710		12G15	I	Toponce	23	6S	37E	6160
								12G19	I	Twitchell Canyon	21	5S	37E	6300
								12G17S	I	Wildhorse Divide	4	8S	34E	6490
TETON RIVER														
10F21A	Wy	Darby Canyon	28	43N	118W	8250								
10F22	Wy	Freds Mountain	12	44N	118W	8000								
10F25	Wy	Indian Meadows	33	46N	117W	8240								
10F26	Wy	Jackpine Creek	15	46N	118W	7350								
11F12	I	McRenolds Reservoir	5	7N	46E	6720								
10F23S	Wy	Phillips Bench	43°31'		110°55'	8200								
11F2	I	Pine Creek Pass	24	3N	44E	6810								
11F1	I	State Line	32	3N	46E	6660								
10F24	Wy	Teton W. S.	43°30'		110°59'	7740								
CAMAS-BEAVER CREEK														
MEDICINE LODGE CREEK														
WILLOW CREEK														
BLACKFOOT RIVER														
FORT PORTNEUF RIVER														

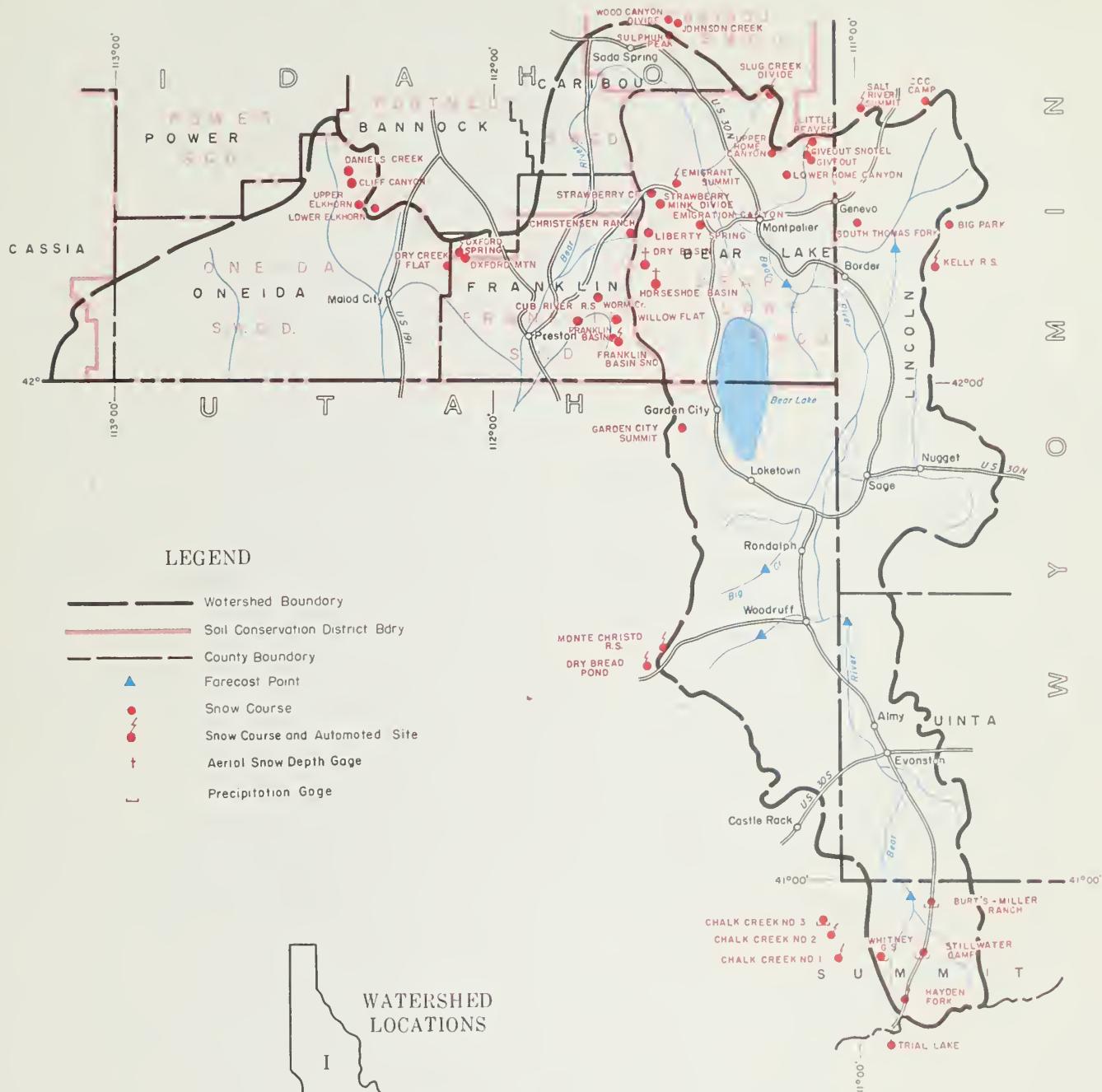
LEGEND

Numbering System (example)

- 10J7 Snow course only
- 10J7A Snow course and/or aerial marker
- 10J7S Snow course and snotel site
- 10J7R Radioactive gage

GREAT BASIN

25 0 25 50
SCALE IN MILES



INDEX to SNOW COURSES

GREAT BASIN

No.	State	Name	Sec.	Twp.	Rge.
			Lat.	or And	Long.

BEAR RIVER

10G11	Wy	Big Park	7	27N	117W	8620
11H13S	U	Dry Bread Pond	19	8N	4E	8350
11G7	I	Emigration Canyon	24	12S	42E	6500
11H7P	U	Garden City Summit	35	14N	4E	7600
10J6P	U	Burts-Miller Ranch	19	3N	10E	7900
10J7P	U	Hayden Fork	25	1N	9E	9400
10G12S	Wy	Kelly Ranger Station	1	26N	118W	8200
11H12P	U	Monte Cristo R. S.	4	8N	4E	8960
10G19	Wy	South Thomas Fork	27	27N	119W	7840
10J17P	U	Stillwater Camp	32	2N	10E	8550
10J28P	U	Whitney G. S.	4	IN	9E	9300

MONTPELIER CREEK

11G16	I	Giveout	2	12S	45E	6840
11G33S	I	Giveout Snotel	2	12S	45E	6930
11G20	I	Little Beaver	27	11S	45E	6970
11G27	I	Lower Home Canyon	17	12S	45E	7640
11G26	I	Upper Home Canyon	31	11S	45E	8560

MINK CREEK

11G11	I	Christensen Ranch	27	13S	41E	5560
11G14A	I	Dry Basin	30	13S	42E	7820
11G6S	I	Emigrant Summit	21	12S	42E	7390
11G15A	I	Horseshoe Basin	31	13S	42E	8000
11G13	I	Liberty Spring	7	13S	42E	8600
11G9	I	Strawberry Creek	9	13S	41E	5820
11G10	I	Strawberry Mink Divide	14	13S	41E	6720

CUB RIVER

11G12	I	Cub River Ranger Station	9	15S	41E	5450
11G8	I	Franklin Basin	1	16S	41E	8040
11G32S	I	Franklin Basin Sno	7	16S	42E	8170
11G4	I	Willow Flat	11	15S	41E	6070
11G28	I	Worm Creek	28	14S	41E	6620

MALAD RIVER

12G13	I	Cliff Canyon	13	12S	35E	7200
12G12	I	Daniels Creek	11	12S	35E	6270
12G4	I	Dry Creek Flat	33	13S	37E	6360
12G11	I	Lower Elkhorn	30	12S	36E	6960
12G3	I	Oxford Mountain	27	13S	37E	6800
12G18S	I	Oxford Spring	27	13S	37E	6740
12G10	I	Upper Elkhorn	25	12S	35E	7140

LEGEND

Numbering System (example)

10J7	Snow course only
10J7A	Snow course and/or aerial marker
10J7S	Snow course and snotel site
10J7R	Radioactive gage
10J7P	Precipitation gage

GOVERNMENT AGENCIES

State

Idaho Department of Water Resources
Oregon State Engineer and Corps of State Watermasters

Federal

Montana Cooperative Snow Surveys
Nevada Cooperative Snow Surveys
Oregon Cooperative Snow Surveys
Utah Cooperative Snow Surveys
Wyoming Cooperative Snow Surveys

U.S. Army Corps of Engineers

U.S. Department of Agriculture
Forest Service

U.S. Department of Commerce
NOAA, National Weather Service

U.S. Department of Interior
Bureau of Reclamation
Water Resources Division, Geological Survey
Shoshone-Bannock Tribal Council

PUBLIC UTILITIES

Washington Water Power Company
Idaho Power Company

ORGANIZED PUBLIC AGENCIES

Big Lost River Irrigation District
Blaine Soil Conservation District
Boise Project Board of Control
Idaho Water District #01
Little Wood River Irrigation District
Salmon Falls Creek Irrigation Company
Twin Falls Soil Conservation District
Big Wood Irrigation Company
Owyhee Project - North & South Board of Control
Valley Soil Conservation District
Portneuf Soil and Water Conservation District
East Cassia Soil and Water Conservation District
West Cassia Soil and Water Conservation District
Camas Soil and Water Conservation District
Lewiston Orchards Irrigation District

PRIVATE ORGANIZATIONS

FMC Corporation
Cyprus Mining Company
Les Bois Resort

Other organizations and individuals furnish valuable information for snow survey reports. Their cooperation is gratefully acknowledged.

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

ROOM 345
304 N. 8TH ST.
BOISE, IDAHO 83702

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

THIRD CLASS-BULK RATE
POSTAGE AND FEES PAID
USDA - SCS
PERMIT NO. G-267

FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Furnishes the basic data
necessary for forecasting
water supply for irrigation,
domestic and municipal water
supply, hydro-electric power
generation, navigation,
mining and industry

—
“The Conservation of Water begins
with the Snow Survey”

DR. A. RANGO, CHIEF HYDROLOGY LAB
ROOM 139, BUILDING 007
USDA - ARS - BARC-WEST
BELTSVILLE, MD 20705